

Executive Summary

Workplace Essential Skills: *Resources Related to the SCANS Competencies and Foundation Skills*

The report, *Workplace Essential Skills: Resources Related to the SCANS Competencies and Foundation Skills*, was developed by ACT, Inc., under the direction of the U.S. Department of Labor, Employment and Training Administration, and the U.S. Department of Education, National Center for Education Statistics. The purpose of this project has been to document the skills and behaviors that have been identified as essential for a workforce facing the challenges of global competition in an environment of rapidly changing markets.

Defining the project

Foundation. The workplace competencies and foundation skills defined in *Skills and Tasks for Jobs: A SCANS Report for America 2000*, provide the foundation of this report. Commissioned by the U.S. Department of Labor, SCANS convened in 1990 to identify the skills that American workers needed for job success in a global market, and to create a plan of action to make sure those skills are developed by all citizens. The competencies and foundation skills that resulted from the SCANS study were intended to set the agenda for what students are taught in the nation's schools and how workers are trained and retrained for the high-skill, high-wage jobs of the future. Considering SCANS' roots in the Department of Labor and its prominence in the workforce development field, it was logical to base this study of workplace essential skills on the foundation provided by the SCANS study.

Overview. While the SCANS competencies and foundation skills identify what skills are important and needed, and the SCANS study offers an agenda for teaching and training American workers in the use of these essential skills, there are now numerous other systems for identifying, defining, measuring, and analyzing essential workplace skills. These have grown both rapidly and in many directions, creating the need for a comprehensive overview of products and services related to workplace skills. This report provides that overview. It can, therefore, serve as a resource for organizations and researchers as they proceed to build on the essential skills defined here. It can also serve as an historical reference of the efforts made to date, and how they relate to one another.

Standard language. When comparing the workplace basic skills defined by SCANS, and skill frameworks developed by a variety of national and international organizations, ACT found a great degree of commonality in the skill definitions. As a result, in addition to its usefulness as an overview, this report standardizes the language used for the discussion of workplace basic skills. In this capacity it will serve as a general reference for human resources personnel, trainers, educators, curriculum developers, and researchers who are interested in workplace basic skills training. It can function as a guide for these professionals and others who wish to rely on a taxonomy of skills development when planning courses or other training exercises, or who would like guidance in relating assessments to the skills being taught.

Standard reference points. This research also expanded the general applicability of the skill definitions by developing a behaviorally-anchored scale for each skill. The hierarchical scales operationalize the skill definitions by providing behavioral examples of the skill performance within a skill area. For instance, for the foundation skill, Reading, Level 1 is defined as "Reads simple material such as basic instructions, directories, product labels, menus, phone messages, and

signs to be informed or to learn. Level 5 Reading is defined as "Synthesizes specialized or highly technical documents in order to solve problems or perform analysis or evaluation."

For workers, employers, trainers, educators, and program administrators considering work-related activities, these scales can serve as a standardized point of reference for activities such as:

- Identifying the skills and skill levels required for employment
- Approximating the skill levels of current or future workers
- Identifying the skill development that will help match workers to job requirements
- Describing individual skills as part of a job transition process
- Identifying valid assessments for measuring workplace readiness
- Using a hierarchical taxonomy of skills for facilitating the development of individual training plans, and for preparing and developing employment training programs

Workplace Essential Skills: Resources Related to the SCANS Competencies and Foundation Skills was also commissioned to go beyond the identification and classification of the skill definitions to address the following questions:

- What skills are being defined?
- What are the levels of performance for each SCANS skill area defined?
- What features do the SCANS and Occupational Information Network (O*NET) frameworks have in common?
- What assessment tools are available to measure the SCANS skill areas?
- How are exemplary programs providing training for these skills?

Because the report addresses these questions, it also serves as a comprehensive reference for workforce development initiatives.

Using the report

The report uses the SCANS organizational framework that distinguishes between workplace competencies and foundation skills. The workplace competency areas are: managing resources, accessing and storing information, interpersonal situations, understanding systems, and using technology. The foundation skills--basic skills, thinking skills, and personal qualities--are necessary for proficient performance in each of the five competency areas. There is a separate section of the report for each SCANS competency area and the foundation skills required for successful performance within it. Each of these sections includes the following elements:

The original SCANS definition. Each skill section leads with the original SCANS definition as it was published in 1991.

Panel comments. A panel of technical experts including business, government, and education professionals was convened to review the information that was gathered during the literature review. Their comments are presented here.

A summary of the literature review. More than fifty domestic and international sources that reported on sets of essential skills were included in the literature review. Direct comparisons between the skills were made by grouping them according to the SCANS framework.

A list of sources. Summaries of how a given skill or skill area was defined by a source are included under this heading. The list is an excellent resource for future researchers who may work to organize and define workplace skills.

The SCANS scales. Based on the literature and panel comments, hierarchical behavioral scales for each skill area were developed. The scales can be used for identifying tasks performed by workers in a given job, and when job descriptions and/or training curriculums are in development.

*SCANS–O*NET Crosswalks.* The Occupational Information Network (O*NET) is replacing the *Dictionary of Occupational Titles*. The content model of O*NET is designed to provide a systematic way to collect and analyze occupational information in order to accurately describe the activities, context, characteristic, and requirements of each occupation in the United States. The SCANS to O*NET Crosswalks permit understanding of the O*NET skill definitions and scales as they compare to the SCANS skill definitions and scales, and vice versa. The crosswalks are not intended to replace SCANS or imply equivalence, but to direct users to definitions of similar skill areas.

*SCANS–O*NET scale anchors and how they relate to each other.* Each O*NET skill area contains three scale anchors: High, Medium, and Low. Where a match exists at the definition level, the SCANS scale level definitions were matched to the O*NET scale anchors. However, Level 5 on the SCANS scales does not always correspond to the “High” O*NET scale anchor, and Level 1 on the SCANS scales is not always equal to the “Low” O*NET scale anchor.

*Other O*NET links.* The O*NET categories describe potentially different aspects of workplace skills that are relevant to the SCANS skill areas. Therefore, other possible O*NET links are provided under this heading.

Assessments. *Tests in Print*, the *Mental Measurements Yearbooks*, and the *ERICA/AE Test Locator* were consulted and a list of assessments was compiled. The assessments listed were designed for youth and/or adult populations, were suitable for nationwide administration, and appeared to be relevant to the SCANS competencies and foundation skills. Major assessment publishers were asked to provide test descriptions and technical information. No attempt to critique the assessments listed in this report was made by ACT or the Department of Labor, so further information should be obtained from the publisher before deciding to use specific assessments.

There are five appendices, as follows:

Appendix A contains a list of sources, with a brief summary of each source. For this list, ACT concentrated on literature that was mainly produced in the last decade. This list is an excellent resource for future researchers who may work to organize and define workplace skills.

Appendix B contains a table showing the complete set of Crosswalks developed for the report, the SCANS to O*NET framework crosswalk, the SCANS to O*NET scale crosswalk, and the O*NET to SCANS crosswalk. The crosswalks provide an alignment of

the SCANS and O*NET frameworks and are developed as a resource for those who have adopted SCANS or similar frameworks and need guidance to transition to the new O*NET framework.

Appendix C contains the full list of published assessments that are currently available for use in measuring workplace-related skills. The assessments are listed in alphabetical order. Information presented in the listing includes a description of the assessment; its publisher, and its availability; potential links to SCANS skills; the purposes it might be used for; and technical information.

Appendix D provides case studies that exemplify effective strategies for teaching workplace essential skills. The case study report documents instructional practices that have been effective for helping learners develop and improve essential workplace skills. The case studies present exemplar programs that may serve as models for those working to develop, administer and improve workforce development initiatives.

Appendix E is a list of the technical experts and youth training program professionals who were members of the Workplace Essential Skills Panel.

Through the synthesis of workplace essential skill definitions, skill level descriptions, assessments associated with them, and case studies this report offers a "roadmap" for education and training providers who are incorporating workplace readiness skills into their vocational and technical education or adult education programs. State agencies and local providers of vocational and technical education, adult education, and programs developed under WIA will also find these frameworks and assessments useful to their local program development and improvement goals.

***Workplace Essential Skills:
Resources Related to the SCANS Competencies and Foundation Skills***

Workplace Essential Skills: Resources Related to the SCANS Competencies and Foundation Skills, a comprehensive report on necessary workplace skills, was developed by ACT™ under the direction of the U.S. Department of Labor, Employment and Training Administration, and the U.S. Department of Education, National Center for Education Statistics. It provides the results of a comparison of the workplace basic skills defined by the Secretary's Commission on Achieving Necessary Skills (SCANS) with skill frameworks developed by a variety of national and international organizations. The comparison found a great degree of commonality in the skill definitions. Therefore, the research yielded a comprehensive common language for the discussion and examination of workplace basic skills. The report is intended to serve as a guide for human resources personnel, trainers, educators, and researchers who are interested in workplace basic skills training.

This research also expanded the usefulness of the skill definitions by developing behaviorally-anchored scales for each skill. These scales can serve as a common standard and reference point for workers, employers, trainers, educators, and program administrators as they consider work-related activities including the following:

- Identifying the skills and skill levels required for employment
- Estimating the skill levels of current or future workers
- Identifying the skill development that will help match workers to job requirements
- Describing individual skills as part of a job transition process
- Identifying valid assessments for measuring workplace readiness
- Using a hierarchical taxonomy of skills for easing the development of individual training plans and for preparing and developing employment training programs

This report provides crosswalks and links from the SCANS skill definitions and scales to relevant O*NET skill definitions and scale anchors. These crosswalks show features that are shared by the two frameworks and that are central to current U.S. workforce-related educational and training initiatives.

Central to the Workforce Investment Act state and local areas that are required to provide workforce preparation and training for adults and youth to meet the requirements of Title I of Adult Education and Family Literacy, and Perkins Vocational and Technical Education programs need to measure workplace readiness, basic, academic, and technical skills. They can use this report as a reliable reference as they develop standards and identify workplace competency assessments.

The synthesis of the workplace essential skill definitions, skill level descriptions, associated assessments, and exemplary case studies provided in this report, represent a "roadmap" for states that are incorporating workplace readiness skills into their vocational and technical education or adult education programs. Local providers of workforce investment services, vocational and technical education, and adult education will also find these frameworks and assessments useful to their local program development and improvement goals.