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ABSTRACT

Washington's Workforce Training and Education Coordinating Board (WTECB) conducted research to identify components that constitute a content definition of career development by relating history, defining nomenclature, identifying issues, and describing the various approaches to such standards. Past efforts to establish academic and career development standards at the national and state levels were reviewed. Special attention was paid to the following: the rationale for standards; standard definitions; progress to date; and standard-setting issues (subject-matter content, criteria for developing standards, taxonomy approaches, scope of content, and articulation with postsecondary education). As a result of its research, the WTECB identified a total of 33 components in 7 categories as the career development standards preferred by employers in high-performance workplaces. Among the components identified were the following: career preparation (career awareness, planning and setting career goals, awareness of workplace habits, work-based learning experience, job search and retention skills); personal responsibility (personal striving, sociability, self-management, autonomy, balance of work and family); technology; interpersonal (participates as a team member, teaches others, serves clients/customers, leads, negotiates, works with cultural diversity); information (acquires, evaluates, organizes, maintains, interprets, and communicates information); systems; and resources (manages time, money, materials and facilities, human resources). (Contains 48 footnotes) (MN)

Career Development Standards

Background Paper

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Adopted by the Workforce Training and Education Coordinating Board

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TABLE OF CONTENTS

INTRODUCTION

In the 1991 legislation creating the Workforce Training and Education Coordinating Board (WTECB), the Legislature found that our education institutions should be emphasizing the needs of the "approximately eighty percent of our young people who enter the world of work without completing a four year program of higher education" and our education and training system should be "more responsive to the needs of business and workers and local communities." RCW 28C.18.005. One of the duties assigned to WTECB in that enabling legislation is to advocate for "meeting the needs of employers and the work force for workforce education and training." RCW 28C.18.060(2). Specific duties in relation to K–12 education include making recommendations to the State Board of Education and the Office of Superintendent of Public Instruction on essential core competencies in K–12 education, the integration of academic and vocational education in the secondary curriculum, and the facilitation of school-to-work transition. RCW 28C.18.060(17) & (21).

As reform of K–12 education has proceeded in this state, WTECB has been an advocate for students who graduate from high school to pursue work or additional education. WTECB has consistently supported the development of a high level of academic standards in the K–12 arena and has worked to establish a workforce development system throughout the state, which is consistent with a competency-based approach to education and training. As part of its ongoing advocacy, WTECB has monitored the creation of the essential academic learning requirements (EALRS) and continually provided input on whether the EALRS are adequately addressing standards that will prepare students for the high-performance workplace demands of today's economy.

In working with education partners, it has become increasingly clear that there is no common understanding of what skills and knowledge are necessary to prepare students for the high-performance work world. There is also an increasing recognition throughout the country that a taxonomy of, and content for, career development standards needs to be developed which articulates the work being done on academic standards with the analogous, yet mostly independent, work on industry skill standards. *The purpose of this research is to identify components that constitute a content definition of "career development" by relating history, defining nomenclature, identifying issues, and describing the various approaches to such standards.*

It is the objective of the research, findings, and definition contained in this paper to contribute to the development of a consensus of opinion as to career development content that can inform curriculum development and policymaking on critical education reform issues, including the development of a K–12 accountability system and the establishment of performance-based graduation and college admission requirements. This paper will also serve as a backdrop for the establishment of a policy position related to these matters by the Workforce Training and Education Coordinating Board.

HISTORY

The current concern over improving the skills of students entering the workforce can probably be traced to the "A Nation at Risk" report, issued in 1983, wherein a close link was made between the financial security and economic competitiveness of our country and the success of our educational system.[1] This link was specifically addressed by the six national education goals, which came out of the 1989 Education Summit by President Bush, including a goal relating to the "knowledge and skills to compete in the global economy."[2] Many national subject matter organizations responded to this presidential call for national education goals

by developing standards in their disciplines for demonstrating competency. The first group to do so was the National Council of Teachers of Mathematics. Standards were soon identified by national organizations in science, civics, language arts, history, social studies, music, art, theater, and dance, among others.

The 1990s saw specific legislation addressing educational standards relating to the world of work. The 1990 Carl Perkins Vocational and Applied Technology Education Act required vocational programs to develop and implement a system of "performance standards, assessments and services that provide experience in and understanding of all aspects of the industry students are preparing to enter."[3] Under this mandate for assessing program effectiveness, many states pooled their resources through the Vocational-Technical Education Consortium of States (V-TECS) to develop standards (as a normative definition or list of skills that some may achieve) for vocational programs. These standards since have been used to assess vocational education students on their career development skills.[4]

Three interlocking pieces of legislation passed in 1994 promoted the development of a voluntary system of national academic and industry skill standards: Goals 2000; the School-to-Work Opportunities (STWO) Act; and Improving America's Schools Act. Goals 2000 requires states to develop a comprehensive plan to improve education, including establishing learning standards. However, the law provides for waivers of any federal requirements and federal review of the state plan is limited to comments from a panel of practitioners from other states. Many of the standards developed under Goals 2000 have been linked to career development standards.[5]

The Goals 2000 Act also established the National Skills Standard Board (NSSB) to facilitate the creation of *industry skill standards.* Twenty-two skill standard pilot projects have been funded to date. In NSSB's 1997 report to Congress, they reported the following progress to Congress on the development of skill standards: the identification of 16 economic sectors as an organizing taxonomy for skill standards; the establishment of criteria for adopting the skill standard recommendations of voluntary partnerships within these sectors; and the funding of a project to create portable skill certificates and integrate academic and industry-recognized skill standards.[6]

Not all efforts to develop academic or industry skill standards are proceeding from the national level downward. The Mid-Central Regional Educational Laboratory (MCREL) has reported a threefold increase in the number of schools and districts asking for assistance in the development of standards in the last year.[7] And, although there has not been a high level of interconnectedness between work on academic standards and efforts to establish industry skill standards, many states are now attempting to align these standards by defining standards for career development skills.

Washington State

Washington State has its own history in relation to academic and career development standards. First and foremost, Washington has a unique constitutional provision (Article 9, Sec. 1) that requires the state, as its paramount duty, to fully fund an ample education for all children. The state Supreme Court has created a substantive legal test of this duty that "goes beyond mere reading, writing and arithmetic." This includes the duty "to equip our children for their role as . . . potential competitors in today's market . . . [it] would be hollow indeed if the possessor of the right could not compete adequately . . . in the labor market . . . ." (See Seattle School District v. State (1978), 90 Wn. 2d 476, at 517.)

In 1993, the state legislature passed the Performance-Based Education Act, which defines the educational system intended to meet this obligation in the future as student learning goals, an assessment system, and an accountability system. The four state learning goals are:

GOAL 1: Read with comprehension, write with skill, and communicate effectively and *responsibly in a variety of ways and settings*;

GOAL 2: Know and *apply* the core concepts and principles of mathematics; social, physical, and life sciences; civics and history; geography; arts; and health and fitness;

GOAL 3: Think analytically, logically, and creatively, and *to integrate experience and knowledge* to form reasoned judgments and solve problems; and

GOAL 4: *Understand the importance of work and how performance, effort, and decisions directly affect career and educational opportunities.* (emphasis added)

The legislation also created a Commission on Student Learning (CSL) to identify Essential Academic Learning Requirements (EALRS) related to each of the learning goals. However, it directed CSL, to the extent possible, to integrate the work-related goal with the knowledge and skill areas contained in the other goals.

Included in the Performance-Based Education Act is a provision that requires schools to "provide students with the opportunity to pursue career and educational objectives through educational pathways" that integrate academic and vocational learning. RCW 28A.630.885 The Legislature also passed the School-to-Work Transition Act in 1993, which states that educational pathways should "prepare students to demonstrate both core competencies common for all students and competencies in a career or interest area." RCW 28A.530.862

As in other states, the development of industry skill standards in Washington State has proceeded on a separate track from the creation of academic standards. The School-to-Work Transition Task Force, formed by the governor in 1995, adopted a work plan which gives responsibility for the development of skill standards in Washington State to the State Board for Community and Technical Colleges (SBCTC). To date, they have facilitated the development of skill standards in the information technology sector and have initiated standard-setting projects in 15 industry areas, including the allied dental fields, food processing, and cosmetology. SBCTC and WTECB are also involved in a joint project with Oregon and California funded through NSSB to integrate academic standards with skill standards in the retail and banking industries through portable skill certificates. In addition, the Manufacturing and Technology Group (MTAG), a coalition of industry, education, and government formed in 1992, has developed a set of competencies in the manufacturing sector, which is presently being converted into skill standards.

THE RATIONALE FOR STANDARDS

The movement to establish academic and industry standards can be seen as an attempt to improve the current educational system to prepare students for careers in a changing workplace.[8] The Secretary's Commission on Achieving Necessary Skills (SCANS) reported in 1991 that more than half of all students leave high school without the knowledge and skills to hold a good job. Policymakers, educators, and employers have seen an important change in the nature of work and the types of skills required on the job.[9] And, focus group discussions conducted by SCANS indicated that students themselves know that what they do in school bears little resemblance to what

they will do in the workplace. In a 1996 analysis of the supply and demand for workforce training in this state, WTECB found that employers are having the most difficulty finding job applicants with vocational certificates or degrees at the postsecondary skill level. They also found that Washington State employers believe that these skill shortages are limiting business expansion, lowering productivity, and reducing product quality.

In the job market of today, a worker needs more than a strong back, a willingness to work, and a high school diploma. In an age of exploding knowledge and rapid change in technology, information exchange, and communications, there is an increased demand for higher knowledge and skill levels, the ability to continually learn, and the aptitude to solve real problems.[10] Working now demands adaptability and the ability to work in teams more than the discipline to work on an assembly line. The workplace of today is becoming a decentralized workplace where workers take responsibility, collaborate, and make decisions.[11] Industry has led current reforms based on the recognition that, in an increasingly competitive global economy, they must build "high performance" work organizations and a highly competent workforce committed to excellence. Their perception has been fueled, to a large degree, by the success of standards and certification systems in other industrialized nations.[12]

The educational paradigm of Carnegie units/or seat-time courses is viewed by some as no longer ensuring uniformity, consistency, or a sufficiently high level of learning. Variations in course content and grading practices have proliferated.[13] Standards are designed to promote consistent learning at high levels of competency.[14] In addition to increasing levels of learning, career development standards and career pathways drive reform of the occupational curriculum to provide contextual learning (an integration of academics and vocational education) and standards driven assessment of student work-related skills.[15] A premise of this new paradigm is that teaching know-how in the context of relevant problems is the most effective way to teach—it helps all students become more attentive, more interested, and more teachable.[16]

The standards movement has gained widespread acceptance due to the common interests inherent in communicating requirements of the workplace, promoting high-performance work practices, and improving the quality and accountability of education and training programs.[17] A standards system is perceived as benefiting students, educators, workers, employers, and consumers in the following ways:[18]

students: clearer standards for success in school and clearer goals/direction for future careers

educators: more consistent, focused and higher level guidelines to improve curriculum and instruction

workers: "portable" certificates facilitate mobility, higher wages, job security, and advancement

employers: more efficient and uniform criteria to recruit, screen and place personnel

consumers: the creation of an accountability infrastructure to judge the performance of schools

In summary, the goals of the standards movement as it relates to career development skills seems to be:

1. to help students see the relationship between what they study and its application in the world of work, thereby improving academic achievement and providing a decent standard of living;
2. the reform of secondary, postsecondary, and workforce education programs through the integration of vocational and academic curriculum and the deepening of the relationship between business and education; and
3. moving workplaces to a high level of performance in order to be competitive in today's global economy.

STANDARD DEFINITIONS

Content Standards

It is generally accepted that standards should convey expectations of what individuals should know and be able to do.[19] Standards that do so are called content standards and typically include: declarative knowledge (information with component parts); procedural knowledge (the skills and processes important to a content area); and contextual knowledge (information and skills that have a particular meaning because of the conditions that perform part of their description).[20] For instance, in writing, knowing the conventions of punctuation is declarative knowledge, editing an essay is procedural knowledge, and using the appropriate tone and style for a selected audience is contextual knowledge.

Content standards typically include developmentally appropriate subcomponents called **benchmarks**.[21] That is, benchmarks define what students at a particular grade level or stage in their education would normally know and be able to do. Content standards are also usually accompanied by **performance standards**, which identify levels of achievement or competency at each benchmark and may include multiple levels (i.e, basic, proficient or advanced).[22] Content standards are distinguished from **curriculum standards** which address classroom instructional techniques or recommended activities used to help students achieve the content.[23]

Standards have been developed both in education and in industry. **Academic standards** describe skills and knowledge associated with academic disciplines.[24] **Skill standards** (or industry or occupational skill standards) describe a common set of academic and technical skills and knowledge needed in workplaces associated with a job or group of jobs or an economic sector (industrial or occupational clusters).[25] Skill standards are primarily viewed as a taxonomy of increasingly more specific sets of skills and knowledge that are required as one moves from a purely educational focus to a broad industry or occupational standards focus and then to a more job-specific focus.[26] In furtherance of this view, NSSB has suggested a skills standard framework of: 1) core knowledge and skills that are common and essential for an entire economic sector; 2) concentration knowledge and skills that cover broad areas within a sector; and 3) specialty knowledge and skills that target particular jobs.[27] Other perspectives see skill standards as a hierarchy of work-related skill development over a period of time or a system of industry- or job-specific tasks.[28]

Early job analysis techniques used in developing skill standards reinforced traditional workplace skills (skills as a collection of tools or list of tasks).[29] Supporters of workplace and educational reform have criticized such efforts because jobs today are less well-defined, requiring workers to make more decisions about what, when, and how to use tools in the workplace.[30] In this more professional work environment, standard setting becomes a measure of the effectiveness of workers in broadly defined roles and is based on critical work functions (major chunks of work that constitute principal duties).[31]

Career Development or Workplace Readiness Standards

There is much standard-setting work that is currently focused on applying academic standards to workplace settings and/or aligning academic and industry standards. Career development or workplace readiness standards are the focal point of these attempts at application and articulation. They can be defined as describing generic skills and qualities that workers must have in order to learn and adapt to the demands of any job or career field.[32] The education-related objective is to join the ideas of scholarship

and craftsmanship through contextual and work-based learning opportunities to produce versatile thinkers who can put knowledge to action. The employment-related objective is to let students know what academic and technical skills they need to be able to enter a career field and let employers know the skills and abilities of entry-level job applicants.[33]

Career pathways or industry/occupational clusters are a tool to integrate academic and skill standards at the high school level.[34] They are used as a means to organize information about education and work requirements within particular careers, focus on career exploration activities, and develop a coherent and coordinated program of study at the secondary and postsecondary levels.[35] While the needs of education and industry are somewhat different in clustering, cluster systems have been developed based on a simultaneous consideration of occupations and educational programming.[36]

PROGRESS TO DATE

A. National Efforts

A 1988 study, sponsored by the American Society for Training and Development (ASTD) and the U.S. Department of Labor, found that employers wanted employees with more than the basic academic skills. Employer complaints focused on deficiencies in such areas as problem-solving, interpersonal skills, and personal management—deficiencies which they viewed as affecting their bottom line. The study produced an early taxonomy of "Skills Employers Want" that included the following:

1. Learning to learn
2. The 3 Rs: reading, writing, computation
3. Listening and oral/communication
4. Creative thinking/problem-solving
5. Personal and career development/goal-setting motivation/self-esteem
6. Interpersonal/negotiation/teamwork
7. Organizational effectiveness

The ASTD taxonomy had a considerable amount of currency in education until the Department of Labor established a commission to examine the demands of the workplace and advise on the level of skills required to enter employment. The Secretary's Commission on Achieving Necessary Skills (SCANS) reported in June of 1991 that all students needed to develop a new set of competencies and foundation skills if they were to enjoy a productive, full, and satisfying life. They identified a three-part foundation of skills and personal qualities and five competencies that lie at the heart of current job performance. *The listing reported by SCANS is the most widely used career development taxonomy in education today and includes the following*:

Foundation

1. Basic Skills: reading; writing; math; listening; speaking
2. Thinking Skills: creative thinking; decision-making; problem-solving; seeing things in the mind's eye; knowing how to learn; reasoning
3. Personal Qualities: responsibility; self-esteem; sociability; self-management; integrity/honesty

Competencies

1. Resources: identifies, organizes, plans and allocates resources
2. Interpersonal: works with others
3. Information: acquires and uses information
4. Systems: understands complex interrelationships
5. Technology: works with a variety of technologies

The Council of Chief State School Officers' (CCSSO) Workplace Readiness Assessment Consortium conducted an independent effort to distill a number of definitions of workplace readiness from states and organizations. They published their own taxonomy in 1993 and revised it in 1995. It includes:

1. Personal management: develop and maintain personal characteristics and behaviors necessary for success in the workplace.
2. Academic foundations: develop and improve applied academic skills necessary for the workplace (math, communication skills, science and technology, social sciences, and health and P.E., and the arts).
3. Career development: plan and prepare for current and future career options, based on personal qualities and interests.
4. Interpersonal: develop and maintain effective and productive groups
5. Thinking/problem-solving skills: demonstrate the ability to generate innovative and practical solutions to real-world problems.
6. Technology: select, apply, and maintain tools and technologies.
7. Communication: receive, process, and convey information using a variety of sources.
8. Workplace systems: determine how an individual job fits into the overall organization, how the organization fits into the industry, and how the industry fits into the overall economy.
9. Participate in the work organization: contribute to the accomplishment of the organization's purpose.

The Department of Labor has more recently developed a skill-based framework for describing knowledge, skills, and abilities across all industries and occupations as part of its Occupational Information Network (O*NET). The O*NET content model structures occupational information in a variety of categories, including the following "worker requirements" related to workplace readiness:

1. Basic Skills Content: reading comprehension, active listening, writing, speaking, mathematics, science
2. Basic Skills Process: critical thinking, active learning, learning strategies, monitoring
3. Cross-Functional Skills: social skills, complex problem-solving skills, technical skills, system skills, resource management skills

A number of further national efforts are worthy of note. The Vocational-Technical Consortium of States (V-TECS) worked with an industry advisory committee in the state of Illinois and an extended advisory group from its 23 member states to determine workplace skills critical for every worker. In 1991, they developed a duty/task list of 98 workplace skills. In 1993, the American College of Testing (ACT) established a list of generic workplace skills called the "Work Keys System" to provide students with information on skill levels required for jobs, to assist in workforce skill instruction to identify qualified employees and to evaluate training programs. The Mid-Central Regional Educational Laboratory (MCREL) has also tried its hand at a career development taxonomy that has application beyond the world of work entitled "Life Skill Standards." The New Standards project has developed and continuously updated a three volume set (one each for elementary, middle school, and high school levels) of performance standards, including an "applied learning" taxonomy that integrates workplace skills with additional adult roles. And the National Occupational Information Coordinating Council (NOICC) has created "career guidelines" that identify competencies and indicators at elementary, middle/junior high, high school, and adult levels for self-knowledge and career planning. The taxonomies identified in each of these systems can be found in Appendix A.

The content of the major national efforts (ASTD, SCANS, CCSSO, and O*Net) is remarkably similar. They all address a broad range of career development skills that are generic to what students need to know and be able to do in any occupation or career. The SCANS taxonomy and content is the most comprehensive—it includes the content in the other taxonomies and it provides more content detail, particularly in the areas of personal qualities, systems, and resource management. The only major area that the SCANS taxonomy does not address is career preparation activities (individualized planning and exploration of career options). The taxonomies developed by V-TECS, Canada, ACT, MCREL, New Standards, and NOICC are based on a different approach or purpose. V-TECS is task-focused rather than skill driven. The ACT model is not comprehensive as yet and is designed primarily for employers to assess the skills of potential workers. Both the MCREL and New Standards models integrate employability skills with applied skills relating to the adult roles of citizen, consumer, and family member. The NOICC guidelines are a helpful listing of career preparation content, but are limited to that topic.

B. State-Level Efforts

Over a dozen states have now adopted state-level taxonomies and content standards expressly related to career development. The breadth (number of content areas covered) and depth (benchmarking) of the content varies, but most all states have addressed the general content areas of career preparation activities, the SCANS foundations (personal qualities, thinking skills), and the SCANS competencies (technology, interpersonal, information, systems, resources) to some degree. *Table 1* identifies the content areas addressed by each state. In addition to the content areas in the table, two states (Texas and New York) have identified core knowledge and skills within occupational clusters or vocations. It should be noted that the scope of this research project did not include an examination of the academic content standards of states to identify expressly stated career development content standards that may be embedded in such academic standards.

States vary in how they organize these content areas. While most all have a general content area entitled "workplace readiness" or "career preparation," many have adopted an additional category or categories for listing parts of the content areas. A few states have organized some or all of their standards by traditional vocational areas, in a category that integrates them with other life skills, or

within the framework of technology. An interesting feature of more recently adopted taxonomies is the creation of a category that either adds an applied skills component to academic content areas or acknowledges by title that the standards have cross-content curriculum applications.

Several states have benchmarked their standards. Arizona has identified benchmarks at the Kindergarten, Grades 1–3, Grades 4–8, Grades 9–12, and honors levels for each of its content standards. Maine, New York, Oklahoma, Vermont, and British Columbia have also established benchmarks.

Some states have also provided additional depth in their standards by establishing performance indicators or contextual examples, including Maine, Michigan, Minnesota, and New York. These "curriculum frameworks" are very useful to educators for developing instructional activities and performance-based assessments such as student profiles or portfolios.

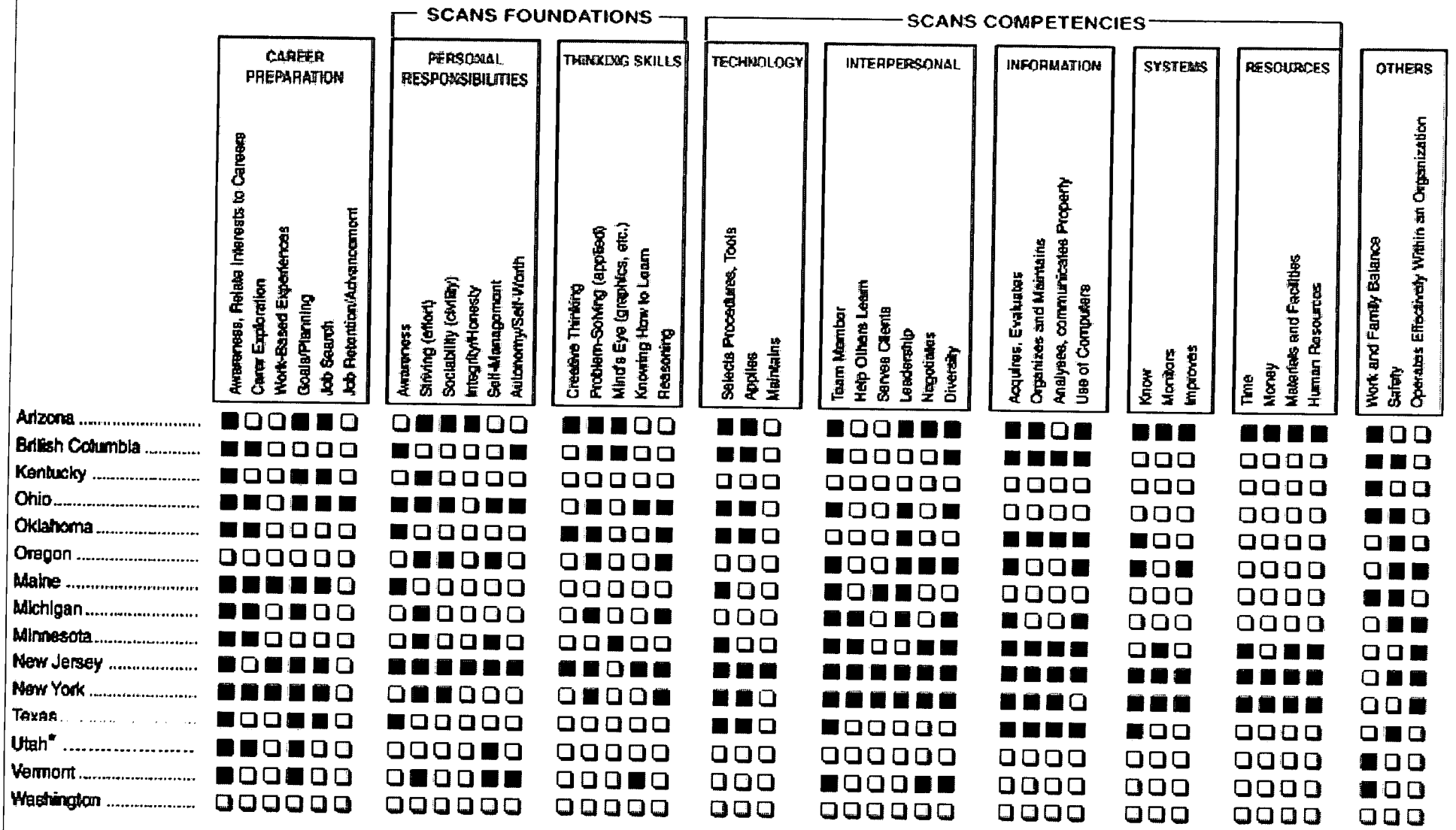
C. Local Efforts

The scope of this research project was limited to national and state-level taxonomies. However, it became quite apparent to the author during the course of this research that many schools and school districts throughout the country are developing career development standards and related curriculum. One example within this state includes the Spokane School-To-Work Consortium, which is developing a certificate of competency for each of its vocational programs, including workplace personal qualities and competencies related to interpersonal skills, thinking skills, and systems. The Columbia River Education Workforce Council is in the process of piloting a portfolio formatted as a "Certificate of Employability" that documents career development, personal qualities, and SCANS competencies.

D. Washington State Efforts

In the implementation of the education reform legislation in the state of Washington, the CSL followed the statutory directive to integrate Goal 4 into the other state learning goals, to the maximum extent possible. Early this year, a committee established by the Governor's School-to-Work Transition (STWT) Task Force reviewed the EALRS for work-related content and reported their findings to the CSL. In a report prepared by the Education Development Center (EDC), it was found that there was no consensus among CSL subject advisory committees on how to define Goals 3 and 4 and that, therefore, each committee was left to their own interpretation of what was to be learned and applied to meet these goals. The review found that Goals 3 and 4 were variously included as separate EALRS, separate components within EALRS, and benchmarks or examples within a component, but the extent to which they were included varied considerably from one content area to another. In addition, the report found that the process of integration was hindered by the lack of a set of common core competencies that students need to be successful in the workplace. In addition to the Task Force review, the CSL established a committee to review and edit the EALRS for clarity of language, accessibility, and inclusion of Goal 3 and 4 elements.

Table 1: Career Development Content Standards by State



* 7th and 8th grade standards only

STANDARD-SETTING ISSUES

Subject-Matter Content

The primary issue in defining career development standards is subject-matter content. Existing standards differ significantly in breadth, depth, specificity, and other content dimensions.[37] Many states and localities have worked with businesses in their communities to identify content and NSSB is presently conducting a national job analysis to validate the skills set forth in the SCANS taxonomy. Conservative groups may not be pleased with subject-matter content that embraces interpersonal skills or personal qualities, such as self-worth, personal goal-setting, or negotiation skills—believing that such matters are not the appropriate domain of educators. Others have criticized an industry dominated approach that might fail to acknowledge that students must be literate citizens, contribute to the community, and make informed decisions as voters.[38] Educators tend to want less prescriptive standards and industry more specific to intended uses.[39] Early efforts, such as DACUM and V-TECS, used job analysis techniques that reinforced standards as skill components or specific tasks.[40] The standards in the 22 skill standard projects funded by NSSB have been criticized as setting academic content too low.[41] It has also been suggested that standards should be based on current work conditions, not "high performance" systems that are still the exception in the workplace.[42] Despite these criticisms, there is fairly strong support among the academic and business community for the need to establish and provide for learning experiences, so that students achieve at a high level.[43] And, states have more recently considered taxonomies that promote the integration of academic skills and occupational skills to gain parental acceptance and serve all students by keeping their career options open throughout high school.[44]

Criteria

In order to develop high quality educational standards in general, the following criteria have been suggested:

1. Be rigorous and world class;
2. Combine knowledge and skills;
3. Define multiple levels (benchmark);
4. Include performance standards (how well students should know or do);
5. Be written clearly for all stakeholders; and
6. Be specific enough to assure development of a common core curriculum, to guide instruction, and to provide for adequate assessment and certification (provide curriculum frameworks).[45]

With specific regard to career development standards, the standards system developed should:

1. Be built on generic work-readiness skills;
2. Be integrated in some manner with academic content standards;
3. Provide for career pathways;
4. Create no age or time limits; and
5. Be written with a range of youth and adult education and training options in mind.[46]

Assessment research also suggests that any performance standards written for career development skills need to provide enough flexibility to allow for a range of performance-based assessment tools (such as portfolios, profiles, and projects).

Taxonomy Approaches

There are three fundamental taxonomy approaches that states have adopted to date. The first approach is to organize the content areas through traditional vocational programming (such as business education, agriculture, home economics, etc.). While this strategy has the advantage of utilizing existing curriculum organization, it does not promote the integration of academic and vocational education nor the organization of curriculum at the secondary level around career pathways. The content is also less clear because it is dispersed among a number of vocational program titles. Another disadvantage of this taxonomy approach is that by using traditional vocational programming categories, the articulation with postsecondary instruction becomes problematic as the use of industry skill standards is increasingly utilized by these institutions. Career pathways provide a better chance for the proper articulation to occur.

Another approach to organizing career development standard content is to merge it with content for other adult roles in a "life skills" category. This approach has been used in Kentucky, Vermont, and British Columbia (in part) and provides a framework that can be utilized to relate academics to adult roles in addition to the role of worker (such as citizen, consumer, family member). Where this is done, however, the breadth and depth of employability content is considerably diluted. Also, such an approach may not provide enough direction to drive curriculum, instruction, and assessment that has specific application in the context of work. In addition, it does not provide a solid foundation for the establishment of career pathways and, thus, articulation to future education and/or careers.

The most common taxonomy approach is to group content standards together in whole or in part in a title, such as "workplace readiness skills" or "career development." This taxonomy establishes clear, identifiable content associated with preparing students for the world of work.Under this approach, there is a danger that the identification of a separate category might drive a less integrated curriculum. Some states have dealt with this issue by adding an "integrated learning" or "applied skills" category that either creates additional applied learning standards for academic disciplines or merely recognizes that career development skills can be viewed as applications of skills learned within particular disciplines. New Jersey identifies distinct standards, "cross-content workplace readiness standards," but provides a list of how the standards "crosscut" with standards in academic content areas.

In a slightly different twist, the state of New York has adopted "integrated learning standards." These standards are actually expectations for understanding and applying academic, career development, and occupational skills in an integrated manner. For example, the integrated learning standards include an expectation that students will "demonstrate the integration and application of academic, occupational, and technological skills and/or activities in their school, work, and personal lives."

There is a fourth taxonomy approach—total integration of career development skills into academic skills. However, there is no indication that any state has successfully addressed the full range of career development skills by completely embedding them within academic content areas.

Scope of Content

The general consensus is that career development standards should include, in addition to core academic competencies: thinking skills; career preparation activities; personal qualities; and SCANS competencies.[47] Among states establishing content standards, career preparation activities, most of the content related to personal qualities, thinking skills, and the SCANS competencies of technology, interpersonal skills, and information were uniformly addressed. Three other content areas (safety, balancing work with the family, and operating effectively within an organization) were also included by the majority of the states. Fewer states addressed the SCANS competencies relating to systems and resources and the personal quality of integrity/honesty.

It should be noted that the content area of career preparation includes activities required of students, rather than skills and knowledge that students should know and be able to do. However, all states have included these activities in their career development content because of their importance in creating relevance for students and establishing a successful transition to future education and career opportunities. Also in the SCANS report, some interesting recommendations were made with respect to workplace-related personal qualities. They pointed out that personal qualities are best developed in teamwork efforts and should not be taught, but woven into expectations for student behavior.[48]

Articulation with Postsecondary

The identification of career pathway core knowledge and skills as an integral part of K-12 standards substantially assists in the articulation of secondary and postsecondary education. A good example can be found in the State of New York where six career clusters have been identified, including Business/Information Systems, Health Services, Engineering/ Technologies, Human and Public Services, Natural and Agricultural Sciences, and Arts/Humanities. Each cluster contains standards that identify specific technical knowledge and skills necessary to progress to gainful employment, career advancement, and success in postsecondary programs.

FINDINGS

The general consensus nationally and among states that have specifically addressed career development standards is that such standards should include, in addition to core academic competencies: thinking skills; career preparation activities; personal qualities; and SCANS competencies. Three other content areas (safety, balancing work with the family, and operating effectively within an organization) were included by the majority of the states.

The identification of career pathway core knowledge and skills as an integral part of K-12 standards substantially assists in the articulation of secondary and postsecondary education. The identification of specific technical knowledge and skills within each pathway aids student progression to gainful employment, career advancement, and success in postsecondary programs.

CONTENT DEFINITION

The identification of a set of career development standards can inform the debate on upcoming issues related to the creation of a performance-based education system in this state. A career development definition contributes to the discussion of performance-based graduation requirements established by the State Board of Education, the creation of the K–12 accountability system, and the establishment of performance-based college admission requirements. The definition can also provide content for curriculum frameworks that facilitate a smooth and efficient transition of students from their high school education directly to work or to postsecondary education or training necessary for entry-level work. Such preparatory work by students could be recognized as a career development "endorsement" on the high school transcript as envisioned by CSL's Ad Hoc Advisory Committee.

To assist students in acquiring the generic knowledge and skills to sustain employment in a high-wage, high-skill economy, the first step is to identify the substantive scope of skills and knowledge needed. While the general skill and knowledge areas identified on page 21 are critical to successful employment in a high-performance economy, details of each component (such as benchmarks and proficiency levels) remain to be determined.

These content areas include the full range of skills and knowledge cumulatively addressed by the states that have dealt with career development skills and knowledge. The academic disciplines set forth in the EALRS and thinking skills (Goal 3) are not included here because they are fully addressed in the current EALRS. The content area of career preparation includes activities required of students rather than skills and knowledge that students should be able to know and do. *It should also be noted that the research relating to personal responsibility content area suggests that these are not skills and knowledge that schools teach; they are behaviors that are typically learned at home and in groups and reinforced at school.* Also, RCW 28A.150.211 makes it clear that values and character traits are essential, but they are not to be assessed or be statewide standards for graduation. Further, local communities have the responsibility for determining how they are learned.

WTECB identifies the following components as the career development standards preferred by employers in a high performance workplace:

Career Preparation
- ► Career awareness/relating personal interests to careers
- ► Planning and setting career goals
- ► Career exploration
- ► Awareness of workplace habits
- ► Work-based learning experiences
- ► Job search and job retention skills

Personal Responsibility
- ► Personal striving (effort, initiative, perseverance)
- ► Sociability (civility, empathy, adaptability) integrity/honesty
- ► Self-management (self-control, goal oriented)
- ► Autonomy (self-knowledge, positive)
- ► Balance of work and family

Technology
- ► Selects appropriate procedures or tools
- ► Applies technology to task
- ► Maintains technology

Interpersonal
- ► Participates as member of a team
- ► Teaches others
- ► Serves clients/customers
- ► Exercising leadership
- ► Operates effectively within an organization
- ► Negotiates
- ► Works with cultural diversity

Information
- ► Acquires and evaluates information
- ► Organizes and maintains information
- ► Interprets and communicates properly
- ► Uses computers to process information

Systems
- ► Understands systems
- ► Monitors and corrects system performance
- ► Designs and improves systems
- ► Safety

Resources
- ► Time
- ► Money
- ► Materials and facilities
- ► Human resources

Footnotes

[1] "A Brief History of the Modern Standards Movement," MCREL, May 1996

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[5] "Assessing Students for Workplace Readiness," Phyllis Grummon, Beb., 1997

[6] "What Work Requires of Schools: A SCANS Report for America 2000," the Secretary's Commission on Achieving Necessary Skills, U.S. Department of Labor, June 1991

[7] "A Brief History of the Modern Standards Movement,"...

[8] "Education and Work: Education Reform Issues; The Rationale for an Integrated System for Workforce Education Curricula," Center for Occupational Research and Development, Feb. 1997; "What Work Requires of Schools"...

[9] "Making Sense of Industry-Based Skill Standards," Thomas Bailey and Donna Merritt, Dec. 1995

[10] "New Jersey Core Curriculum Content Standards," New Jersey State Board of Education, Feb. 1996

[11] "Skills for Tomorrow's Workforce,"...

[12] Ibid; "A Brief History of the Modern Standards Movement,"...

[13] "A Brief History of the Modern Standards Movement,"...

[14] "Skills for Tomorrow's Workforce,"...

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[16] "What Work Requires of Schools"...

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[20] "A Brief History of the Modern Standards Movement,"...

[21] Ibid

[22] "Skills for Tomorrow's Workforce,..."

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[24] "What Work Requires of School..."

[25] "Skills for Tomorrow's Workforce,..."; "Skill Standards: A Tool for State Workforce Development System Reform," Evelyn Ganzglass and Martin Simon, National Governors' Association, May 1995; "Report to Congress..."

[26] "Skill Standards: A Tool..."

[27] "What Work Requires of Schools..."

[28] "Issues in Establishing Standards in Eight States,..."

[29] "Making Sense of Industry-Based Skill Standards,..."; "What Work Requires of Schools..."

[30] "Making Sense of Industry-Based Skill Standards,..."

[31] "Making Sense of Industry-Based Skill Standards,..."; "What Work Requires of Schools..."

[32] "Revitalizing High Schools: What the School-to-Career Movement Can Contribute," by Susan Goldberger and Richard Kazis, 1995; "Standards: Making Them Useful and Workable in the Education Enterprise," Joan Wills, 1997; "Skill Standards: A Tool..."

[33] Centerfocus, NCRVE, Jan. 1997; "What Work Requires of Schools..."

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[35] "Standards: Making Them useful..."

[36] "Standards: Making Them Useful..."; "Report to Congress..."

[37] "Skills for Tomorrow's Workforce,..."

[38] Ibid

[39] Ibid

[40] "Making Sense of Industry-Based Skill Standards,..."

[41] "Applying the Standard: Using Industry Skill Standards to Improve Curriculum and Instruction," Steven Klein, et. al., Jan. 1997; "Making Sense of Industry-Based Skill Standards,..."

[42] "Skills for Tomorrow's Workforce,..."

[43] Ibid; "Making Sense of Industry-Based Skill Standards,..."

[44] "Issues in Establishing Standards in Eight States,..."

[45] Centerfocus,...; "Youth Preparation for Employment," A Policy Reference Document of the Council of Chief State School Officers, 1995; "New Jersey Core Curriculum Content Standards,..."; "What Work Requires of Schools..."

[46] "Academic Standards and School-to-Work..."; "Youth Preparation for Employment,..."' "New Jersey Core Curriculum Content Standards,..."

[47] "Standards: Making Them Useful..."; "Academic Standards and School-to-Work..."; "Youth Preparation for Employment,..."; "New Jersey Core Curriculum Content Standards,..."; "What Work Requires of Schools..."; "Report to Congress..."

[48] "What Work Requires of Schools..."

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