

# Review of Literature

for the Virginia Workplace Readiness Skills Revision, 2009

Edited and produced by  
CTE Resource Center  
Margaret L. Watson, Administrative Coordinator  
Darren E. Morris, Writer/Editor

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CTE Resource Center  
2002 Bremo Road, Lower Level  
Richmond, VA 23226  
Phone: 804/673-3778  
Fax: 804/673-3798  
Web address: <http://www.CTEresource.org>

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See Sheet1

	A	B	C	D	E	F	G
1	Title	Issuing Organization	Author/Editor	Date	Type of Publication	Summary	Review of Features
2	21st Century Skills Assessment	Partnership for 21st Century Skills (AZ)		2007	White paper	Meeting the demands of today's world requires a shift in assessment strategies...We must move from primarily measuring discrete knowledge to measuring students' ability to think critically, examine problems, gather information, and make informed, reasoned decisions while using technology.	Argues for formative assessment. The assessment is a teaching mechanism. Offers helpful charts.
3	A Developmental Perspective on College and Workplace Readiness	Child Trends	Lippman, Atienza, Rivers, Keith	2008	Report supported by the Gates Foundation	Provides a developmental perspective on what competencies young people need to be ready for college, the workplace, and the transition to adulthood. Also spends time with special pops.	Divides "competencies" into four main areas, and shows common ground competencies for each of the levels: secondary, postsecondary, and workplace. The four areas include: physical development; psychological development; social development; and cognitive development. This should be helpful when revising WRP.
4	America's Perfect Storm, Three Forces Changing Our Nation's Future	Educational Testing Service, Northeastern University	Kirsch, Braun, Yamamoto, Sum	2007	policy information report (25 pg.)	The three forces: divergent skill distributions among US population groups, a changing economy, and demographic trends of a growing, more diverse population.	Alludes (p.12) to Murnane and Levy's "new basic skills," which, they argue, comprise a broader range of both cognitive skills along with a set of the so-called "soft skills." Emphasizes training for high-skill/managerial positions. Stat-rich.
5	Are They Really Ready to Work? Employers' Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century U.S. Workforce	Society for Human Resource Management, in collaboration with The Conference Board, Corporate Voices for Working Families, and the Partnership for 21st Century Skills	Casner-lotto and Barrington	2006	report (60-pg.)	Study of the corporate perspective on the readiness of new entrants into the US workforce by level of educational attainment. A Workplace Readiness Report Card is presented (pg. 41). Stresses learning through real-world examples.	Recommends the following applied skills: Critical Thinking/Problem Solving; oral communications; written communications; teamwork/collaboration; diversity; information technology application; leadership; creativity/innovation; lifelong learning/self direction; professionalism/work ethic; ethics/social responsibility. (see pg. 9-10) For future needs for skills in the workplace see table on pg. 49. "Foreign Language" proficiency and "Making appropriate choices concerning health and wellness" and "personal finance" skills.
6	Assessing Applied Skills	Educational Leadership	DiMartino and Castaneda	2007	article (3 pg.)	How the "Carnegie unit," awarding course credit for seat time, is working against efforts to teach and test 21st century workforce skills. Why? Because capstone projects (assessment of acquired skill) requires extended learning that conflicts with robotic scheduling. The skills in demand by employers are missing in graduates: oral and written communication, time management, critical thinking, problem solving, personal accountability, and the ability to work effectively with others. Obsession with core academics is distracting educators to prepare students to become successful.	The way we run our secondary schools is completely opposite from the realities of the workplace.
7	Book Review "Teaching the New Basic Skills"	Boston Review	Graubard	1998	web page	Reviewed favorably with the following crit: "they suppose that the point of schooling is primarily to ensure the trained workforce required for a well-functioning economy...it represses the values central to the old progressive-humanistic strand of educational critique and school-reform vision. That conception focused on the meaning of the learning experience to individuals as moral, thinking, feeling, maturing agents."	Warns that the authors are economists and as such maintain a purely functionary point of view, as if education's role was to simply produce better workers who positively impacted the economy.
8	Bridging Business and Education for the 21st Century Workforce, A Strategic Plan for Virginia's Career Pathways System	The Governor's Task Force on Career Pathways System Development	Workforce Strategy Center	2008	report (25 pg.)	Report on the career pathways system in VA, how it's composed and defines its objectives, stressing leadership structure, strengthening business connections, encouraging transitions to workforce or new jobs, expanding supportive services to help people finish training programs, and getting business and government on the same page. The plan envisions bringing academics and career education together.	The mention of "Bridge Programs" seems especially relevant to WPR (p. 18), but much of this is about the evaluation and administration of the career pathways program.
9	Bridging the Skills Gap	American Society for Training and Development		2006	public policy report		
10	Building Tomorrow's Workforce: Promoting the Education and Advancement of Hispanic Immigrant Workers in America	Corporation for a Skilled Workforce	Gershwin, Coxen, Kelley, Yakimov	2007		An administrative document about the state of Hispanic ed and what is and should be happening to improve it, from an educator's perspective. Not really standards based. Focused on Community Colleges and building employer connections.	One in four new workers will immigrate from Latin America. Helpful doc to consider, but not directly helpful to our revision.

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11	Career Academies, Long-Term Impacts on Labor Market Outcomes, Educational Attainment, and Transitions to Adulthood	MDRC	Kempe, James	2008	report (50 pg.)	A 15-year random assignment study of Career Academies in nine urban high schools with follow up stats 8 years beyond HS. Argues for the combination of academic and career skills and provides evidence that investing in career-oriented programs and experiences for HS students can have a long-term payoff in the labor market. For benefits to students see pg. 8.	No standards comparison but emphasizes teaching all courses through the lens of careers.
12	Career and Technical Education in the United States: 1990 to 2005 Statistical Analysis Report	U.S. Dept. of Ed, Institute of Education Sciences National Center for Education Statistics		2008	report (240 pg.)	Thorough report on the state of the nation with a section on "outcomes associated with participation in CTE, including academic attainment, postsecondary education, and employment and earnings."	Quote: "the more occupational credits graduates earned in high school, the greater their academic course taking gains between 1990 and 2005." pg. viii. Differences between gender, occupational course taking, and subsequent earning potential. See also "trade-off" figures on pg. 47.
13	Career Readiness Certificate					The CRC provides employers and employees with a standardized tool for assessing essential workplace skills. Individuals who carry the CRC demonstrate their competency in <b>applied mathematics, reading and locating information</b> – workplace skills required by more than 85% of jobs in the country.	
14	Closing the Expectations Gap	Achieve, Inc.'s American Diploma Project		2008	Statistical analysis, progress report in four identifiable areas.	An annual 50-state progress report on the alignment of high school policies with the demands of college and careers. Focuses on the gap between skills and knowledge needed to earn a hs diploma and those that they need beyond hs, in careers or college.	States that "Academic rigor = college and workplace success, as a percentage of current student pop." But is this because these courses represent students who challenge themselves or have parents who challenge them? Or is it a product of the courses they take? Which comes first, the behavior or the achievement? This project claims to be a national movement.
15	ConnectEd, The California Center for College and Career					The new fed legislation supports a growing market for curriculum that uses the world of work to make learning come alive for more young people.	
16	Critical Skills Needs and Resources for the Changing Workforce, Keeping Skills Competitive	Society for Human Resource Management and the Wall Street Journal		2008	study (40-pg.)	HR professionals' responses regarding skills training and professional development offered through their organizations are compared with employee responses regarding effectiveness of and preference for various skills training and education formats to show the extent to which organizations are providing training and education opportunities that meet employees' needs.	In my judgment, this is the single most important document regarding our revision of WPR in VA. Very detailed charts, stats, and explanations of employer expectations and how they've evolved. Plus, interesting table on pg. 30 regarding CTE center training--employers view these students more favorably than those who graduate from 2-year College programs.
17	CTE's Role in Workforce Readiness Credentialing	Association for Career and Technical Education			issue brief	Use of workforce readiness credentials is likely to increase as employers seek ways to measure these skills efficiently and evaluate potential hires. Points out work being done by Florida, Arkansas, Georgia, Oklahoma, and California. Emerging skills cited: critical thinking; problem solving, applying academic knowledge; situational judgment.	Provides an argument for not focusing solely on traditional academics and avoiding duplicating the work of standardized academic assessment. For career education, context is everything and students are not generally provided this by traditional academic classrooms.
18	CTE's Role in Workforce Readiness Credentials	Association for Career and Technical Education	Hyslop	2008	article (4 pg.)	Explores the role CTE plays in expansion and value of workforce readiness credentials. Condensed version of the issue brief.	
19	Do Good Grades Predict Success?	New York Times and Freakonomics Blog	Dubner, Stephen	2008	blog article	Brings questions to light re: ACT tests and academic achievement as fallible predictors of future success.	I researched the very little out there regarding this topic. Teachers claim there's a movement against using ACT/SAT scores as a means to locate students and put them into pathways or recruit them for colleges. The more successful people we can find who were terrible or mediocre students, the more ACT and standardized testing seems silly.
20	Earning Industry-recognized Credentials in High School: Exploring Research and Policy Issues	Journal of Career and Technical Education	Castellano, Stone, Stringfield	2005	Article/study	An initial exploration into issues that arise when conducting research or considering policy on industry certification in high school with recommendations provided.	Many schools, districts, and states have adopted industry-recognized credentials as a component of their CTE accountability systems.
21	Facing the Culture Shock of College	Educational Leadership	Cushman	2007	article (3 pg.)	Deals with diversity issues regarding students who enter college.	Offers a few tips for secondary educators to help alleviate issues. Reminds us that the playing field is not level.
22	Framework for 21st Century Learning	Partnership for 21st Century Skills (AZ)			flyer (1pg.)		

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23	McRel Standards	Mid-continent Research for Education and Learning		2008	online docs	A list of benchmarks for life work and entering the workforce, including self-regulation standards/behaviors, thinking and reasoning, and working with others.	Should be helpful to our revision process.
24	National Academy Foundation				web site naf.org		
25	New Directions for High School Career and Technical Education in Wyoming, A Strategic Plan	MPR Associates, Inc.	Hoachlander, Klein, Studier	2007	plan (75-pg.)		
26	New Jersey Cross-Content Workplace Readiness Curriculum Framework	New Jersey State Dept. of Ed.		2001	book	How to implement Workplace Readiness Skills curriculum at every level.	
27	New Research Reveals Top Ten Skills for 2020	Ohio DOE through KnowledgeWorks Foundation	Education in the New Global Economy subcommittee	2008	web article and website (Primer) <a href="http://www.kwfdn.org/enewsletter/primer/archived_issues/default.aspx?p_id=30">http://www.kwfdn.org/enewsletter/primer/archived_issues/default.aspx?p_id=30</a>	Lists the top 10 skills beginning with communication skills/teamwork/building relationships and the ability to think critically/solve problems/apply knowledge.	Interesting projections for the next top ten, but even more interesting were the comments from readers regarding the article and how standards and increased rigor inhibit creativity and innovation.
28	New Rigor for Career Education	Educational Leadership	Hoachlander	2007	article		
29	Prepared for What? Matching Our Rhetoric to Reality	Education Week	Rosenbaum, James	2007	article	Our political reluctance to prepare students for anything besides the top 40 percent of jobs may leave many students unprepared for any jobs.	Stresses requiring CTE courses for all and teaching "soft skills" as a priority.
30	Preparing for the Future: Employer Perspective on Work Readiness Skills	MBAE, Mass Business Alliance for Ed		2006	report	Collection of credible info about the range of skills that Mass. Employers consider necessary for jobs now and in the future and focusing on the competencies needed for high school grads to succeed in the workplace.	Employers want a mix of academic and soft skills: written and verbal; basic math and computer skills; problem-solving, the ability to implement instructions, and carry out multiple tasks. Also: respect, drive, work ethic, self confidence, commitment, and adaptability, lifelong learning, resourcefulness, able to learn on the job. (pg. 9-10)
31	Ready for College and Ready for Work: Same or Different?	ACT		2006	report (10 pg.)	Claims: "Study provides empirical evidence that the levels of readiness that high school graduates need to be prepared for college and for workforce training programs are comparable. These empirical results are also supported by commonalities seen in the types of knowledge and skills students need to be ready for college and workforce training programs, even though these skills are often taught and assessed in different contexts. All of these skills can be acquired through rigorous high school courses..."	ACT scores often present more of an obstacle than an accurate reflection of a student's ability to become a lifelong learner and successful, productive citizen. Underperformance on these tests often dramatically reduces opportunity which can lead to a downward spiral academically, professionally, and personally. My opinion is that these tests determine future success but are in reality weed-out exams that do not have much to do with lifelong learning or our human drive to be successful on the job.
32	Remaking Career and Technical Education for the 21st Century: What Role for High School Programs?	Double the Numbers: A Jobs for the Future Initiative and The Aspen Institute	ed. Kazis, Richard and multiple authors	2005	report (45 pg)	Broad report on the state of the nation regarding CTE and its value, citing its potential for schoolwide reform, chiding it for not emphasizing academics or teaching them well and emphasizes academic achievement as the key predictor of successful people. Interesting authors, including Mark Warner and SREB. Maryland's bullets on page 39 are terrific goals, but we're interested in implementation. We should keep our eye on Maryland's achievements in the coming years.	I think as forward looking as this report pretends to be, it accepts completely the over emphasis of academic achievement as a means to train the emerging workers of the world. To make CTE academic focused would create a greater division between successful test takers and those who learn by doing. There should be more collaboration, but the fence of academic achievement and assessment scores may be too high for other types of learners to climb. It argues to bring CTE into the 21st century; I argue that pure academic teaching is not meeting the needs of the productive 21st century citizen.

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33	Rising to the Challenge: Are High School Graduates Really Ready to Work?	Achieve, Inc.	Hart, Peter	2005	research study (14 pg)	The vast majority of college students and high school graduates without a college degree say that they have gaps in preparation in at least one crucial subject or skill that they will face. College instructors and employers confirm graduates' assessments in even harsher terms, as they estimate that similar numbers of graduates are inadequately prepared to meet their expectations. College instructors are especially critical and are unsatisfied with the job that high schools are doing in preparing students in writing and mathematics.	
34	Success Skills; Strategies for Study and Lifelong Learning	Thomson/Southwestern	Beale	2007	annotated instructor's edition	Chapters stress active learning; understanding learning styles; creating concentration; learning time management; efficient learning; note taking in class and from reading; improving reading and writing skills; mastering tests; critical thinking; and researching.	This component--learning how and why to learn--seems to be the most crucial in succeeding in postsecondary education or training and success in the workplace. Because high school education often leaves this component out of instruction, due to their focus on teaching subject matter basics, many students who have not learned these skills through osmosis or by natural predilection, enter into the next phase of life, which is infinitely more unstructured than high school, without the tools to soak up new information, sustain interest in acquiring it and using it, and understanding the value in being able to do so. Without this, education, no matter the level, this crucial skill seems hit or miss and risks atrophy beyond the classroom experience.
35	Teaching by Choice: Community Colleges Expand K-12 STEM Pathways and Practices	American Association of Community Colleges, National Science Foundation, NACCTEP (Washington DC)	Barnett, San Felice, Patton		report (12 pg.)	Focuses on what is and should be made available to college teachers to increase expertise to address STEM gaps current and projected in emerging student pops.	Aside from (pg. 5) mention of inquiry based teaching methods--there is no mention of workplace readiness outside of STEM. This is about the need to offer quality professional development to teachers.
36	Teaching the New Basic Skills	Murnane and Levy	Murnane and Levy	1997	web page, related book	Stresses literacy and numeracy skills, analytical skills, problem-solving, knowledge application, flexibility, adaptability, accountability for work. Five principles: front line workers should understand the problem; front line workers should have incentives and opportunities to contribute; provide training opportunities; measure progress; persevere and learn from mistakes.	
37	Texas College Readiness Standards	Educational Policy Improvement Center		2008	report (80 pg.)	The CRS are designed to represent a full range of knowledge and skills that students need to succeed in entry-level college courses, as well as in a wide range of majors and careers.	According to Texas, college prep is more academics, but I didn't see much in the way of application of academics to real-world problems. I don't see how these are different from academic standards which are already drummed into students and assessed in Virginia. There is nothing but remediation for students who don't perform up to snuff. I think most of these kids are different sorts of learners and many times there are not enough resources for teachers to differentiate their instruction to give those students a sense of confidence and direction. I would argue to keep academic theory and basics out of the mix of job skills because SOL tests already address it. Additionally, to assume that all potential candidates need is a higher degree in the four core areas seems to assume way too much. This is what high school is all about, and in my opinion, the research for the skills workers will need makes this emphasis terribly misguided. The most important skills are the "Cross-Disciplinary Standards," presented on pgs. 40-43.
38	The 2007-2008 Workplace Trends List	Society for Human Resource Management		2008	list (11 pg.)	The top trends according to SHRM's special expertise panels. The 2007 panels were asked to revise the list and priorities of 2006.	The list changed little, but for the addition of a new issue (added in 2007 by SHRM): "Corporate Social Responsibility." Not only was it selected as one of the key trends, it was positioned as the highest priority. Obviously, this reflects the mortgage meltdown and financial crisis that emerged during the course of the year.

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39	The Essential Cognitive Backpack, What Essential Thinking Skills and Habits Must Students Carry with Them on Their Journey to Successful Adulthood?	Association for Supervision and Curriculum Development	Levine	2007	article (12 pg.)	The backpack consists of interpretation, instrumentation, interaction, and inner direction.	See pg. 19 for a list of very interesting skills that may bridge the gap between academics and applied activities or technical skills.
40	The Ford Partnership for Advanced Studies				web site fordpas.org		
41	The Forgotten Middle; Ensuring that All Students are on Target for College and Career Readiness before High School	ACT		2008	Research study (70 pg)	Attempts to identify those factors that are the most effective predictors of college and career readiness from MS to HS and to examine the effect that certain steps to improve level of academic preparation would have on their degree of readiness for college and career. List of key predictors: background characteristics; eighth grade achievement; standard coursework; advanced coursework; high school grade point average; testing behaviors.	Almost purely an academic achievement report which does not mention workplace skills per se. I found it judgmental and narrow with statements like this: "Students who leave eighth grade without the essential skills they need to be on target for college and career readiness too often leave high school not ready for any kind of meaningful future." Academic achievement is critical to make the student available to continued ed opportunities, but in my mind, these are different from workplace readiness skills which require academic skills differently per profession.
42	Tough Choices Tough Times, The Report of the New Commission on the Skills of the American Workforce	National Center on Education and the Economy (DC)		2007	executive summary (20 pg.)	A visionary document defining the threat of not evolving our education system and a plan for what needs to be done. US strength will lie in creativity, innovation, and problem-solving skills, including research, development, design, marketing and sales, and global supply chain management.	Surprisingly advocates for arts education among STEM emphasis. Quote: "Strong skills in English, mathematics, technology, and science, as well as literature, history, and the arts will be essential for many; beyond this, candidates will have to be comfortable with ideas and abstractions, good at both analysis and synthesis, be creative and innovative, self-disciplined and well organized, able to learn very quickly and work well as a member of a team and have the flexibility to adapt quickly to frequent changes in the labor market as the shifts in the economy become ever faster and more dramatic.
43	Treat All Students Like the Best Students	Association for Supervision and Curriculum Development	Bottoms	2007	article (6 pg.)	Espouses the benefits of the High Schools That Work model, a combination of schoolwide improvement that combines challenging academics with "vocational" coursework. Also advocates for "writing across the curriculum."	I was more interested in the philosophy of this document than the actual content.
44	What Does Ready Mean?	Education Week	Olson, Lynn	2007	article	Splits the emerging necessities into a three-category examination: academic skills, soft skills, and 21st century skills.	"No one knows precisely how to fashion an education that will yield individuals who are disciplined, synthesizing, creative, respectful, and ethical." Concepts are often easier to quantify than assess. This document may help us decide how to structure the skills we ultimately include.
45	Why do we Need 21st Century Standards?	Partnership for 21st Century Skills (AZ)		2007	white paper	Identifies gaps between current standardized education at the secondary level and actual ability to learn and master subject matter and skills. Highly critical of the current system and research based.	This provides an excellent argument against evaluating students solely by academic performance (SOL/ACT/SAT). Also provides an argument for keeping academics out of WPR standards/objectives revision.
46	Work Keys					Employers use the WorkKeys® system to profile skill requirements for specific jobs, evaluate jobs applicant skills, evaluate the skills of current employees, determine individual and organization skill needs, and to provide focused education and training.	