

# Research Used to Develop the Four Keys to College and Career Readiness

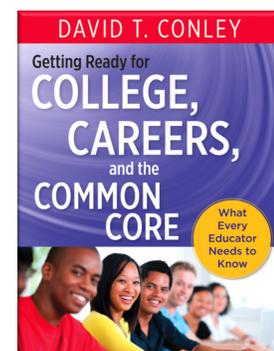
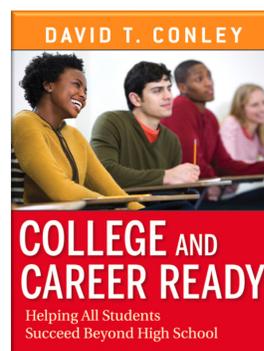
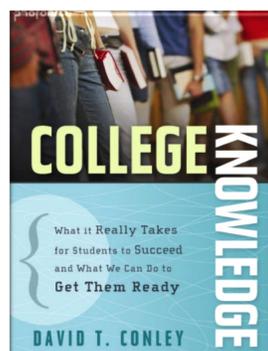
Based on over a decade of research and 20 years of experience in the public education system, Dr. David T. Conley developed the Four Keys to College and Career Readiness (Four Keys) so students, families, and educators can identify and prioritize the skills that are needed to be successful after high school. In its simplest form, we refer to the Four Keys as THINK, KNOW, ACT, and GO. This framework was primarily derived from:

1. Studies and projects led by Dr. Conley and EPIC that are foundational to the model's design and evolution. Research methods include surveys, interviews, case studies, descriptive statistics, and meta-analyses (see list below).
2. Educational and social science research from a wide variety of sources including sociology, psychology, and learning theory in addition to studies of GPA, course-taking patterns, and SAT scores (see reverse side).

## Foundational Work Done by EPIC to Develop the Framework

Study	Description
<b>PASS</b>	Field test of proficiency-based admissions standards system in 52 Oregon high schools
<b>S4S</b>	Development of college readiness standards through interviews of AAU faculty and analysis of entry-level course documents
<b>AP Best Practices</b>	Creation of hypothetical "best practices" college courses against which AP exams could be modeled by analysis of entry-level courses and expert review process
<b>CB Curr. Studies</b>	Analysis of course documents for AP subjects by expert panel, then synthesis of results to inform AP redesign in select subject areas
<b>CREST</b>	Analysis of courses, classroom observations, and interviews at 38 select high schools that over-perform in getting students ready for college
<b>TCCRI</b>	Development of the Texas College & Career Readiness Standards (TCCRS), validation of standards by faculty, creation of "reference courses"
<b>TTAP</b>	Analysis of alignment between placement tests and TCCRS
<b>Reaching the Goal</b>	Survey of ~2,000 postsecondary instructors in 25 subject areas on all Common Core Standards and other postsecondary success indicators
<b>SCCAP</b>	Convening of high school and college instructors in South Carolina to align syllabi between exit-level high school course and entry-level college course
<b>JTPCS</b>	Identification of math/English in postsecondary career programs that is tested on the National Assessment of Educational Progress (NAEP)
<b>CCCA</b>	Identification of math/English in general education courses that is tested on NAEP

**Additional information can be found in Dr. Conley's books:**



# Additional Research Used to Support the Four Keys to College and Career Readiness

## THINK Versatile and Intentional Thinking Patterns for Problem Solving

### Education for life and work: Developing transferable knowledge and skills in the 21st century.

Pellegrino, J. W., & Hilton, M. L. (2012).

### Psychological correlates of university students' academic performance: A systematic review and meta-analysis.

Richardson, M., Abraham, C., & Bond, R. (2012).

### Raising the bar: Employers' views on college learning in the wake of the economic downturn.

Hart Research Associates & Association of American Colleges and Universities. (2010).

### Instructional interventions affecting critical thinking skills and dispositions: A Stage 1 meta-analysis.

Abrami, P. C., Bernard, R. M., Borokhovski, E., Wade, A., Surkes, M. A., Tamim, R., & Zhang, D. (2008).

### Motivation, engagement, and student voice.

Toshalis, Eric, & Nakkula, Michael J. (2012).

### The role of noncognitive skills in academic success.

Kyllonen, P. C. (2012).

### Student engagement literature review.

Trowler, V. (2010).

### Visible learning: A synthesis of over 800 meta-analyses relating to achievement.

Hattie, J. (2009).

### Achievement goals and achievement during adolescence: Examining time-varying predictor and outcome variables in growth-curve analysis.

Shim, S. S., Ryan, A. M., & Anderson, C. J. (2008). Sallee, Margaret W., & Tierney, William G. (2007).

### Do psychosocial and study skill factors predict college outcomes? A meta-analysis.

Robbins, S. B., Lauver, K., Le, H., Davis, D., Langley, R., & Carlstrom, A. (2004).

## Understanding Structures of Knowledge and Mindsets for Learning KNOW

### Assessment of higher order thinking skills.

Schraw, G., & Robinson, D. R. (2011).

### Extending intelligence: Enhancement and new constructs.

Kyllonen, P. C., Roberts, R. D., & Stankov, L. (2008).

### Academic mindsets as a critical component of deeper learning.

Farrington, C. A. (2013).

### Academic tenacity: Mindset and skills that promote long-term learning.

Dweck, C. S., Walton, G. M., Cohen, G. L., Paunesku, D., & Yeager, D. (2011).

### Visible learning: A synthesis of over 800 meta-analyses relating to achievement.

Hattie, J. (2009).

### Top student, top school? How social class shapes where valedictorians go to college.

Radford, Alexandria Walton. (2013).

### Barriers to need-based financial aid: predictors of timely FAFSA completion among low-income students.

Feeney, M., & Heroff, J. (2013).

### Crossing the finish line.

Bowen, William G., Chingos, Matthew M., & McPherson, Michael S. (2010).

### Dreams deferred? The relationship between early and later postsecondary educational aspirations among racial/ethnic groups.

Cooper, M. A. (2009).

### Exploring the effects of student expectations about financial aid on postsecondary choice: A focus on income and racial/ethnic differences.

Kim, J., DesJardins, S. L., & McCall, B. P. (2009).

### The influence of peer groups on academic success.

Sallee, Margaret W., & Tierney, William G. (2007).

## ACT Skills and Techniques to Successfully Own and Manage Learning

## Skills and Awareness to Successfully Navigate Life Pathways GO