

Conley, D. T. (2005). *College Knowledge: What it Really Takes for Students to Succeed and What We Can Do to Get Them Ready*. San Francisco: Jossey-Bass.

College Knowledge is based on research conducted by Conley and his colleagues through the Center for Educational Policy and Research at the University of Oregon. He draws on a strong research base; particularly important is The Standards for Success project, which Conley designed and directed between 1998 and 2001. The results of the current study are a set of standards designed for high schools and colleges to use in order to narrow the gap in the skills, knowledge and behaviors of high school graduates and what college faculty expect entering students to bring with them: the Knowledge and Skills for University Success standards (KSUS). The first two sections of the book constitute background for and introduction to the KSUS.

Part I of *College Knowledge* addresses the need for high schools to shift to an “aligned, coherent program.” Part II focuses on the first year of college and beyond, with an emphasis on preparing college students for success. Because the book is intended as sort of handbook for students and parents, as well as a resource and guidebook for educators, each chapter concludes with a section in which questions about what we can do to increase college success are asked, and related actions are suggested. Throughout these first two sections, Conley describes the experiences of three hypothetical students who start with similar goals in ninth grade, but have very different experiences as they move through high school into their first year of college. In Part III, Conley provides the KSUS standards, the research on which they are based, an analysis of how they can be used, and student artifacts that can be used for assessment.

Conley argues that in American education, we have two systems (secondary and postsecondary) that developed in isolation from each other with distinctly different goals and purposes. As a result, a wide gap exists between what students learn in high school and what they need to know to succeed in college. While this was not an issue even 50 years ago, today, when 90% of ninth graders expect to attend college, it’s become a critical problem. Based on the results of the Bridge Project conducted from 1996 to 2002 by Stanford University, Conley summarizes findings, which indicate how little high school students know about college entrance requirements. Researchers found that student college aspirations decline over time; that high school students get most of their information about college from teachers and parents; and that they are largely unaware of college course requirements, placement testing, and financial aid. College admission is a “knowledge intensive process,” according to Conley; he outlines recommendations for how high schools can help students, particularly first-generation college goers, get ready for college; these recommendations include simplifying the high school curriculum.

The academic content standards for schools developed in the 1990s were geared toward preparing students for the workforce, not for college. However, several studies cited by Conley found that the “single most important factor in determining college success is the academic challenge” of the curriculum that students take in high school. In assessing the secondary curriculum he also finds that students have too much choice in terms of the courses they take, and argues for what he calls “intellectual coherence” in the high school curriculum. Conley analyzes current strategies designed to incase college readiness, including Advanced Placement, Springboard (a product of the College Board, ACT’s testing sequence, the International Baccalaureate program, dual enrollment/postsecondary options initiatives, and early college high schools. Not only must the high school curriculum be intellectually coherent, it needs to articulate with college curricula if the “gap” is to be closed. High schools that do a good job of preparing students for college have an intellectually coherent curriculum that becomes progressively more challenging to students each year. Conley describes some of the expectations and activities of more typical high schools—such as requiring memorization rather than understanding concepts and simply completing a set of unrelated requirements. He then describes a set of steps designed to create an intellectually coherent high school curriculum, including creating exit standards, critically auditing and

reviewing the entire curriculum, and determining what an intellectually coherent program of study would look like. He provides examples in each of the major disciplines: English, math, science, social sciences, second languages, and the arts—describing in each one what steps faculty can take to prepare students to successfully meet those exit standards. High schools interested in this kind of curricular reform should do the following: create intentionality and a clear vision, create clear expectations and progress markers, use the alignment and challenge audit that he recommends, and ensure that students do not make bad decisions.

While current graduation rates at the “best” universities approach 90%, only one-third of entering college students can expect to graduate within four years. Conley states that there are two main factors responsible for the gap between college readiness and college expectations: the ability to succeed in the classroom and other, “more general” behaviors—in other words, lack of intellectual maturity and lack of understanding of the purpose and opportunities of college. Most high school students view college “as some sort of extension of high school.” He cites some data from NSSE (the National Survey of Student Engagement), comparing some of those results to similar data on high school seniors—a comparison strongly suggesting, once again, that high school graduates are not ready for college. Conley then moves to a review of college curricula, beginning with general education. He cites the prevalence of general education reform, and outlines what he sees as “characteristics of effective and innovative general education curricula”: integration of skills, appreciation of diversity, standards and assessments, small learning communities, and first-year interest groups. He then describes some examples of strong and effective general education curricula. Some of these include the University of Chicago’s Common Core, UCLA/s “clusters” approach, the University of Michigan’s interdisciplinary option, Portland State’s Freshman Inquiry Program, and the University of Texas at Austin’s ConneXus Program.

In order to create systems that better prepare students for college, Conley discusses why we must, and how we can, create a system that is better aligned. He proposes a “fundamental restructuring of power in and control over” a K-16 education system. This will involve expanding high school standards and exams, changing admissions tests and processes, using integrated data systems that are currently available, and actually creating a K-16 system that blurs the lines between secondary and postsecondary. This will lead to an environment in which teaching and learning are more systematic, more purposive, and more focused, and to a well-aligned curriculum that will decrease the need for college remediation. He believes that the “tool for determining when students are ready to move on will be academic content standards and measures of how well students have mastered specific standards.” Conley concludes this chapter by outlining what policy-makers high school educators, postsecondary faculty, students, and parents can do to create such a system. He states that a university education “is largely about learning how to think in particular ways. Content,” he insists, “is a means to an end. That end is the ability to think about things differently and in deeper, more systematic and completes ways.”

The final section of *College Knowledge* contains the complete Knowledge and Skills for University Success (KSUS) developed by Conley and his colleagues. The research project involved over 400 faculty (who teach entry level courses) at 20 universities who participated in 9 day-long meetings at which they analyzed key content knowledge and skills expected of students in entry-level college courses. They also reviewed a number of artifacts of student work from these courses. The results were then evaluated by a Content Review Panel of other university faculty managed by an external consulting group. The result of this process are a set of standards covering six disciplinary areas: English, mathematics, natural sciences, social sciences, second languages, and the arts. They are designed to answer the question: “What must students know and be able to do in order to succeed in entry level university courses?” Conley outlines the “habits of mind” that students need to have, including critical thinking, analytical thinking, and problem solving; an inquisitive nature; willingness to accept critical feedback; openness to possible failures; and the desire to cope with frustrating and ambiguous learning tasks. Additionally, students must be able to express themselves in written and oral form, to discern the

applicability and credibility of information, to draw inferences and reach conclusions independently, and use technology as an effective tool to assist the learning process. Attached are the key components of each discipline and area, including two standards from each. The complete set of standards as well as artifacts of college student work and a checklist for college readiness are included in the Appendix to College Knowledge.

Implications for Practice

- Conley makes a very strong case for the lack of articulation between high school and college curricula as the primary reason for students being unprepared to succeed in college. He leaves no doubt that high schools and colleges need to work collaboratively to articulate their curricula.
- The KSUS provide a research-based tool that schools and colleges can use in developing greater curricular integration and articulation. The standards provide high schools with invaluable information on the skills, knowledge and behavior students require in order to be successful college students. They can be used as a framework for both high school and college faculty and administrators in developing and implementing reform strategies.
- At the very least, these standards should be reviewed by joint teams of high school and college faculty—by discipline—to determine how accurate they are and begin serious conversations as to how to effect change.
- The KSUS standards also present important lessons for teaching and learning as well as for content. As Conley states, content “is a means to an end,” not the end itself. The “end” is student learning. Embedded in many of the standards are pedagogical approaches that are more likely to result in student academic attainment than most traditional teaching methods.

Sample KSUS Standards

English Knowledge and Skills Foundations include reading, comprehension and literature; writing and editing; information gathering, analysis, critique, and connections; and orientation toward learning.

I. B. Successful students use reading skills and strategies to understand informational texts. They:

B.4. Employ a variety of strategies to understand the origins and meanings of new words, including recognition of cognates and contextual clues.

III.B. Successful students know how to find a variety of sources and use them properly. They

B.5. Evaluate sources of information located on the Internet in particular to ascertain their credibility, origin, potential bias, and overall quality.

Mathematics Knowledge and Skills Foundations include understanding mathematics; problem solving, technology and communication; and orientation toward learning. Specific skills include computation, algebra, trigonometry, geometry, mathematical reasoning and statistics.

II.D. Successful students understand the relationship between equations and graphs. They:

D.2. Understand the basic shape of a quadratic function and they relationships between the roots of the quadratic and zeroes of the function.

V.D. Successful students know how to estimate. They

D.2. Know when to use an estimation or approximation on place of an exact answer.

Natural Sciences Knowledge and Skills include basic knowledge, thinking about science, solving problems and asking questions; reading, writing and communication and orientation toward learning. The Content Standards include general foundations skills, science and society, environmental science, biology, chemistry, and physics.

II.A. Successful students understand the scientific enterprise. They:

A.4. Know that scientists throughout history have had many difficulties convincing the contemporaries to acknowledge that are now generally accepted scientific ideas.

IV.D. Successful students understand concepts of biological change and the evolution of species. They

D.1. Know how DNA and protein sequences are used to infer evolutionary relationships among organisms.

Social Sciences Knowledge and Skills Foundations include a general sense of history and geography; reading, research and analysis; and orientations toward learning. Content standards for history; economics; geography; political science; sociology; inquiry, research and analysis; and communication are included.

I.A. Successful students have a basic understanding of the social sciences. They:

A.3. Know that each social science discipline is subject to certain criticisms and limitations, and are aware of the primary criticisms and limitations of at least one discipline in the social sciences.

VII.C. Successful students know how to find a variety of sources of information, and how to analyze, evaluate and use them properly. They:

C.5. Critically evaluate information by identifying any bias or perspective of the authors.

Second Language Knowledge and Skills Foundations include communication, culture, comparisons, learning strategies and orientation toward learning, Standards include (no matter what the language) communication skills, culture, structure, and learning behaviors.

III.A. Successful students have a basic knowledge of English syntax, semantics, and discourse structures and are able to compare these with analogous forms in the target language. They:

A.2. Understand the role of grammar and context in various linguistic functions in English and the target language.

Arts Knowledge and Skills Foundations include technical, cultural, historical, aesthetic and art criticism knowledge and skills in the Content Standards areas of art, dance, music, theater, and visual arts.

Students in introductory art history courses do well when they:

2. Reflect on how art works differ visually, spatially, temporally, and functionally and according to geographical place.

Students in music courses do well when they:

3. Can identify and describe music genres or styles that show the influence of one or more cultural traditions.