



PRINCIPLE 4



Enhanced Curriculum and Instruction

- Curriculum and pedagogy involve rigorous and relevant instruction that enhances learning and enables students to attain academic and technical standards and credentials.

Instructional practices need to be supported by proven and practical approaches that enable more students to transition to educational levels that ensure they are prepared for the dynamic environment of today's workplace.



Principle Overview

The fourth Guiding Principle is Enhanced Curriculum and Instruction

Essential Concepts:

Illinois' approach to Programs of Study is centered on:

- activities that improve the content and processes by which high schools and community colleges implement rigorous, non-duplicative coursework
- effective instructional practices that result in more students achieving the credentials necessary to obtain high-skill, high-demand or high-wage jobs.



ESSENTIAL QUESTION



How will you utilize the tools and resources for Principle 4 and its design elements to implement and evaluate your Programs of Study (POS) efforts?



Use this essential question to lead thinking and discussion of Principle 4 and its design elements.



CURRICULUM REFORM



- Academic and CTE Curriculum integration
- Preparation for college
- Rigorous, relevant, academic and technical preparation
- Contextualized instruction

Curriculum Reform

Changing the name of 'vocational' education to 'career and technical' education represents the necessity to prepare all students with the rigorous academic and career and technical skills that almost all careers require.

Lasting curriculum reform efforts require:

- continuous exploration of innovative and proven curricular and pedagogical strategies
- curriculum integration
- linkages for transition to college
- contextualizing academic and occupational-related content

IMPROVING TRANSITION

- Curriculum mapping and curriculum alignment
- Secondary to postsecondary connections
- Orientation and training level course alignment
- Preparation for college and career
- Career exploration and guidance
- Dual credit



Improving Transition

Connecting Principles Three and Four

The process of *curriculum mapping* provides:

- a forum for communication across and among levels
- discovery of gaps and redundancies in content
- identification of appropriate assessments
- the creation of curriculum mapping documents that can be shared electronically among teachers at all grade levels.

Jacobs (2006) identified three essential questions that teachers and administrators should consider when implementing the curriculum mapping process:

- (a) How can we structure school decision making to support cumulative learning?
- (b) How should we design our curriculum to prepare learners for their future?
- (c) How does curriculum mapping serve as a hub for all initiatives regarding teaching and learning?

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Improving Transition

Connecting Principles Three and Four (cont.)

Within Programs of Study, **alignment** is necessary between orientation and training level courses.

Orientation level courses provide:

- career awareness
- introduce and support basic work skills
- provide exposure to the essential knowledge and skills common to a broad range of occupations that fall within a career cluster.

Training level courses provide:

- more detailed, pathway level knowledge and skills
- preparation for technical skill credentials
- transition to college level work

“Lack of rigorous academic coursework at the secondary level contributes to students’ inability to enter college ready to engage in college-level studies, sometimes referred to as “college readiness” (Baber, Barrientos, Bragg, Castro, & Khan, 2009, p. 7).

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Improving Transition

Connecting Principles Three and Four (cont.)

“College knowledge” It is especially critical for students who are the first in their families to consider college or who are from low-income families. Studies show that low-income or first generation college students, including those with high levels of educational achievement, are much less likely to transition to college than their middle-income peers or those whose parents have some college experience (Vargas, 2004).

The Illinois Career Development Task Force recommendations include:

- determining and coordinating current resources including the state’s web-accessible career information system
- integrating national career development standards with the state’s learning standards
- supporting enhanced networking among state and local leaders
- increasing funding
- capitalizing on Perkins Programs of Study and the career development-related suggestions in the Act (Williams, Bragg & Makela, 2008)

IMPROVING TRANSITION

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Improving Transition

Connecting Principles Three and Four (cont.)

Dual credit courses exemplify the potential that rigorous preparation and aligned curriculum can have on students' transition to college. A recent report to the Illinois General assembly indicated that Illinois experienced a 120% growth in dual credit offerings between 2002 and 2008 (Illinois Dual Credit Task Force, 2008).

Benefits for dual credit participants:

- reducing college costs
- speeding time to degree
- improving curriculum options for high school students
- facilitating the transition to college
- enhancing the connections between education levels
- offering opportunities for improving degree attainment for underserved populations.

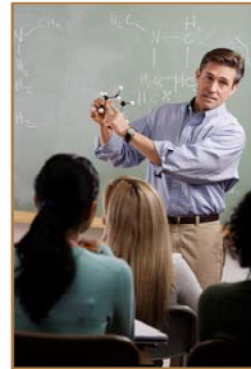
Educators and administrators who develop and expand dual credit opportunities for students enrolled in Programs of Study should devote effort and resources to reach the goals the Task Force identified: (a) ensure quality, (b) improve access, equity and attainment, and (c) increase accountability (Illinois Dual Credit Task Force, 2008).



PARTNERS AND TECHNOLOGY



- Education and business partnerships
- Teaching technical skills
- Access to technology



Engaging Partners and Employing Technology

Microsoft's Partners in Learning resulted in the discovery of *seven critical elements* to consider when establishing a partnership:

1. the degree of mutuality
2. the retention of organizational identity
3. readiness and ability to communicate and collaborate effectively
4. transparent partner motivations, expectations, and benefits
5. leadership and shared vision
6. willingness to embrace change and remain flexible
7. a clear plan with goals, objectives, and accountability (Lesley, 2008, p. 5).

School environments can provide *access to and opportunities for* learning with and about technology.

The technical infrastructure of schools and the technical expertise of the instructors help shape the boundaries of learning.

Technology provides a small but significant increase in learning when implemented with fidelity (Partnership for 21st Century Skills, 2009).



ASSESSING OUTCOMES



- Alignment of curriculum and assessments
- Multiple measures of assessment
 - ❖ Traditional assessment
 - ❖ Authentic assessment
- Understanding by Design



Assessing Outcomes

Assessments

- (a) need to accurately measure academic and technical skill attainment
- (b) need to be aligned with further assessments that determine placement in college-credit courses and programs or achievement of industry recognized credentials.

Traditional assessment methods determine students' acquisition of discrete facts or skills, typically through multiple choice and fill in the blank types of tests.

Authentic assessments determine the compilation of multiple types and sources of information assessed in multiple ways e.g., scientific investigation, purposeful writing, issue debates, and solving real world problems.



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 - ❖ Authentic assessment
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Assessing Outcomes (cont.)

Four steps that help teachers create authentic assessments include:

1. identifying the standards
2. developing tasks the students must perform that indicate they have met the standards
3. identifying the criteria that if present, indicate acceptable performance
4. for each criterion, identifying two or more levels of performance so that discrimination among performance levels can be determined (Mueller, 2008).

Understanding by Design (Wiggins and McTighe, 2005): a 3-stage, “backward design” process in which determining appropriate, multiple assessments comes before designing lessons and activities.



IN PERKINS IV



Title II, SEC. 203. TECH PREP PROGRAM.

- CONTENTS OF TECH PREP PROGRAM
 - articulation agreements
 - consist of a program of study
 - work-based or worksite learning
 - educational technology and distance learning

In Perkins IV

Title II, SEC. 203. TECH PREP PROGRAM.

- (c) CONTENTS OF TECH PREP PROGRAM.—Each tech prep program shall—
- (1) be carried out under an articulation agreement between the participants in the consortium;
 - (2) consist of a program of study
 - (3) include the development of tech prep programs for secondary education and postsecondary education that—
 - (A) meet academic standards developed by the State;
 - (B) link secondary schools and 2-year postsecondary institutions, and if possible and practicable, 4-year institutions of higher education, through—
 - (i) nonduplicative sequences of courses in career fields;
 - (ii) the use of articulation agreements; and
 - (iii) the investigation of opportunities for tech prep secondary education students to enroll concurrently in secondary education and postsecondary education coursework;
 - (C) use, if appropriate and available, work-based or worksite learning experiences in conjunction with business and all aspects of an industry; and
 - (D) use educational technology and distance learning, as appropriate, to involve all the participants in the consortium more fully in the development and operation of programs;



IN PRACTICE



Can you think of an example of Principle 4 being used:

In your school?

Among faculty?

In the state?



An In Practice Example:

Creating a Health Occupations Orientation Course

A pilot project to develop a 9th grade Health Science Orientation Level Course was launched in 2008. Members of the team included The Career Partnership; a team of teachers and administrators from Wheeling High School; and representatives from the Department of Commerce and Economic Opportunity (DCEO), the Metropolitan Chicago Healthcare Council (MCHC), the Illinois State Board of Education, and the Illinois Community College Board.

Through the involvement of MCHC, professionals from a variety of healthcare occupations within the Chicago-land area played a major role in answering the question, “What do health services business partners deem as essential to entering health careers?” The business partners reviewed the essential and cluster level knowledge and skills for the Health Science cluster. Their validation process provided the solid foundation and rationale for the curriculum. Next, the pilot site team made up of science and health teachers, counselors, a principal, administrators, and parents (who were also healthcare professionals) further reviewed the essential and cluster level knowledge and skill statements to determine if the skills should be part of the curriculum and when they should occur in the program sequence. Each member contributed to the discussion to ensure that every aspect of the Illinois Program of Study design elements for Enhanced Curriculum and Instruction were met. The team also devoted a day to a meeting with DCEO and the Jewish Vocational League to review the curriculum and to crosswalk its intended outcomes with the high school’s Explore, PSAT, and ACT exams; the Illinois Learning Standards; and college transition assessments, including the ACT, COMPASS, and ISAT.



IN PRACTICE



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An In Practice Example:

Creating a Health Occupations Orientation Course (cont.)

The curriculum will debut Fall 2009 with a single instructor teaching two sections. Instruction in the orientation course involves contextual and problem-based learning and is aligned with training level courses that prepare students to take the certification exams for CNA and EMT. Students also have the opportunity to take three dual credit courses in the secondary sequence. Smartboard technology will be employed to help students and teachers communicate. Each student will be issued a laptop with mobile web access so they can review, practice, and improve their academic skills. Lessons will include the use of Career Cruising, a web-based research tool. Local business and industry partners will be requested to allow staged filming at area healthcare related worksites, avoiding violations with the healthcare privacy law and preserving patient confidentiality measures.

Karen Johnson, the EFE system director who led the effort, stated, “When it comes to pilot sites, leadership is everything. If the principal is also the curriculum leader in the building, put on your track shoes; you’ll be running to keep up! Laz Lopez, the Principal at Wheeling High school, is this type of leader. His teachers are accustomed to teaming across curricular lines because he’s established this practice. Working with a project like this and all the various groups and their agendas is a lot like democracy. It’s not efficient and it’s often times messy. But you learn so much in the process and the result is so much richer that it is well worth it.”



DESIGN ELEMENTS



- Integrate contextual instruction
- Provide career exploration, development, and guidance
- Offer dual credit opportunities
- Strengthen business, industry, and community partnerships
- Improve integrated and rigorous CTE and academic content
- Reduce the need for remedial/developmental education
- Utilize multiple measures of assessment
- Develop, improve, or expand the use of technology

There are 8 design elements for Principle 4. For each of the design elements, tools and resources are provided to guide partnerships in the implementation. Also, an appendix is included, appendix D, which is a crosswalk of ICCB administrative rules and NACEP standards of the Dual Credit Task Force Report. Please take a moment to review the design elements tools and resources and the appendix for Principle 4.

Principle 4

Design Elements at a Glance

1. Programs **integrate** academic and career and technical content to create **contextual instruction** that engages student interest and improves learning outcomes.
2. Programs infuse **career exploration, development and guidance** throughout the educational system.
3. Programs strongly encourage **dual credit opportunities** in career and technical education and academic courses to accelerate student learning and encourage transition to and success in college-level occupational programs.
4. Programs involve **business, industry and community partners** to provide relevant instructional opportunities (e.g., work-based learning, access to current technology, mentoring and leadership development, cross-cluster projects).



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Principle 4

Design Elements at a Glance (cont.)

5. Programs' cluster-level orientation courses have a rigorous foundation of **CTE and academic content** that prepares students for more advanced academic and training level CTE courses.
6. Curriculum and pedagogy are designed to include the rigor and support services necessary to reduce the need for **remedial/developmental education**.
7. Programs include **multiple measures of assessment** designed for diverse learning styles that accurately determine acquisition of both academic and technical knowledge and skills.
8. Programs develop, improve or expand the use of **technology** to foster students' technical skills and reach more learners.



REFLECTION



- Why is continuous improvement of curriculum and instruction necessary?
- Who needs to be involved?
- What strategies are being utilized by your Partnership to enhance curriculum and instruction?
- Where is more work needed?
- How will your Partnership utilize Principle 4 and its design elements to implement and evaluate your POS efforts?

Use these reflective questions to lead thinking and discussion about next steps for implementation and evaluation of Programs of Study efforts.