Iowa Department of Education Guidelines for PK-12 Competency-based Pathways

This document provides guidelines for developing competency-based pathways in Iowa districts and schools.

Competency-based pathways provide ways to validate learning of competencies that occurs outside the structure of the traditional school and offer flexibility for schools to engage students in learning that moves beyond the traditional constraints of seat time and divisions among content areas. These pathways provide opportunities for students to advance through content or earn credit toward high school graduation regardless of age or amount of time in the classroom, online, or in a setting off campus. They will enable districts and schools to provide student-centered, personalized learning systems through which students of all ages develop both ownership and control of their own learning. Educators and students will be better able to connect learning to students' interests.

I. *Principles

A. Students Advance upon Mastery (Proficiency)

- Students advance to higher-level work upon demonstration of proficiency of competencies rather than according to age or seat time.
- Students are evaluated on performance and application.
- Students will master competencies and earn credit or advance in content at their own pace. They will work through some competencies more rapidly while taking more time to ensure proficiency on others.

B. Explicit and Measurable Learning Objectives that Empower Students

- The relationship between student and teacher is fundamentally changed as students gain understanding of what working with competencies requires and take ownership of learning and teachers provide the appropriate supports for learning.
- The unit of learning becomes modular.
- Learning expands beyond the classroom.

C. Assessment Is Meaningful and a Positive Learning Experience for Students

- Schools embrace a strong emphasis on formative assessment as the unit of learning becomes modular.
- Teachers collaborate to develop understanding of what is an adequate demonstration of proficiency.
- Teachers assess skills or concepts in multiple contexts and multiple ways.
- Attention is on student learning, not student grades.
- Summative assessments are adaptive and timely.
- Assessment rubrics are explicit in what students must be able to know and do to progress to the next level of study.
- Examples of student work that demonstrate skills development throughout a learning continuum help students understand their own progress.

D. Rapid, Differentiated Support for Students Who Fall Behind or Become Disengaged

- Educator capacity, and students' own capacity to seek out help, will be enhanced by technology-enabled solutions that incorporate predictive analytic tools.
- Pacing matters. Although students will progress at their own speeds, students who are proceeding more slowly will need more help, and educators must provide high quality interventions.

E. Learning Outcomes Emphasize Application and Creation of Knowledge

- Competencies will include the standards, concepts, and skills of the Iowa Core as well as the universal constructs (creativity, complex communication, collaboration, critical thinking, flexibility and adaptability, and productivity and accountability).
- Lifelong learning skills are designed around students needs, life experiences, and the skills needed for them to be ready for college, career, and citizenry.
- Expanded learning opportunities are created as opportunities for students to develop and apply skills as they are earning credit.

*Adapted from International Association for K-12 Online Learning (*i*NACOL)

II. Definitions and Explanations

A. Advancement: Progress to more advanced work within the content area.

B. Assessment: Method through which students demonstrate what they know or are able to do. Formative and summative assessments, including examinations, performance tasks, and other evidence of learning must align with competencies/standards and be developed and scored by educators appropriately licensed and endorsed in the grade level and content area.

C. Competency: A competency is the transfer of knowledge, skills, and dispositions to complex situations in and/or across content areas and/or beyond the classroom.

Multiple standards both within and across disciplines outline the knowledge, conceptual understanding, abilities, and skills required to meet the complex demands of the competency. Although individual standards may be assessed/demonstrated at any level of Blooms Taxonomy or Webb's Depth of Knowledge, the expectation of deeper learning related to the competency requires assessment/demonstration at the upper levels of Bloom's (analyze, evaluate, create/synthesize) or Webb's (Level Three: Strategic Thinking, Level 4: Extended Thinking) as well as the appropriate use of the universal constructs, dispositions, and employability skills.

D. Competency-based Education: Learners advance through content or earn credit based on demonstration of proficiency of competencies. Some students may advance through more content or earn more credit than in a traditional school year

while others might take more than a traditional school year to advance through the same content or to earn credit. Credit may also be earned for out-of-school experiences and/or accomplishments. Students at all grade levels are afforded opportunities for more explicit or intensive instruction or enrichment within the content.

E. Credit: A unit awarded toward high school graduation. Credit awarded toward high school graduation should be the same for students demonstrating proficiency on standards through competency-based pathways as for those working through the same standards in a traditional time-based pathway or other nontraditional pathways such as online learning. PK-8th grade students advance through content independent of units of credit**.**

F. Flexibility: Students may work as individuals or in groups and are provided appropriately challenging work according to their identified needs and not always a common learning objective. Elementary students may be distributed among teachers at or across grade levels and support personnel for targeted or intensified support as they struggle or advance. Students may be grouped with multi-age peers. The amount of time each student works on a specific standard and/or remains in an assigned group is determined by performance on ongoing assessments.

H. Proficiency: Demonstrated skill or knowledge required to advance to and be successful in higher levels of learning in that content area or using that content. Districts and schools participating in competency-based pathways will determine proficiency levels and appropriate assessments to ensure all students being awarded credit toward high school graduation or advanced through content at any level have demonstrated the skills and knowledge required to be successful at the next level of advanced learning in the content or related areas as appropriate.

III. License and Endorsement

A. Development of Assessments: Assessments used to determine proficiency must be developed by educators properly licensed and endorsed in the content and academic level of the advancement or credit awarded.

B. Determination of Proficiency: Proficiency of competencies for advancement or credit must be determined by an educator properly licensed and endorsed in the content area of the advancement or credit awarded.

IV. Examples: The following scenarios are provided as examples and are not intended to be all inclusive of the varied examples that may be encountered with moving to competency-based education models.

A. A high school student, who has designed several websites including one for the scout troop and one for a family member's small business, might request credit for Web Design 1 and placement in Web Design 2. An educator who holds a license valid at the high school level determines appropriate assessment(s) and whether

credit, and in this case advancement, is awarded—or if further work is necessary to complete other competencies, which were not demonstrated in the websites presented, but are associated with the credit.

B. An eighth grade student demonstrates advanced understanding of algebraic concepts. When the appropriately endorsed teacher determines through assessment, observation, etc. that the student understands and can apply the competencies associated with the Algebra 1 credit, the teacher awards the Algebra 1 credit and moves the student to another advance math class. If there is no appropriately licensed teacher at the middle school, the student should be guided to the appropriate high school teacher. (The district must also have a policy allowing middle school students to earn high school credit as per 2011 Iowa Acts, Senate File 453, which amended Iowa Code 256.7(26)(a).)

C. An Algebra 1 student struggles and needs extra time with many of the algebraic concepts. The appropriately endorsed algebra teacher works with the student at the student's pace and at the end of the year awards credit according to the competencies in which the student has demonstrated proficiency. The student has the opportunity to work over the summer to demonstrate competency or can start in the next school year where he/she left off in the spring. The student may also work to master the concepts over the summer through formal or informal education and be awarded credit and move forward as appropriate when school starts. (It is also possible that this student might have been more appropriately placed in a pre-algebra class rather than in Algebra 1.)

D. A fifth grade student has an avid interest in science and can demonstrate the essential concepts and skills of scientific inquiry. The student has maintained a personal record of a wide variety of scientific investigations conducted at home, including the appropriate tools and techniques necessary to gather, process, and analyze scientific data. The student communicates his scientific understanding using appropriate vocabulary and makes scientifically valid conclusions from the data collected. The teacher might choose to 1) offer an opportunity for the student to conduct scientific experiments under the supervision of a certified middle or high school science instructor, 2) challenge the student with virtual learning opportunities using online science resources, 3) collaborate with science professionals in the community to conduct real-world science experiments that address the Iowa Core science standards at a deeper and more quantitative level than would be possible in an elementary classroom. (Options listed or examples and not exhaustive.)

E. A fourth grade student has attended sessions of the state legislature and otherwise been exposed to the branches of the government. Progressions of learning for this student are based on what the student already knows and understands about the competencies and takes the student deeper and broader in the same content area or moves the student through the competencies at a faster rate. This student might be given other learning opportunities while the class works on the understanding of the three branches of government. Options might include, but are not limited to: 1) interview legislatures about how they became involved in politics and how they work

together with the other two branches of government (or judges/the mayor along similar lines), 2) prepare a report or classroom display on how a bill becomes a law and how each branch of government functions in the process or after the law is passed, 3) contact legislators for information about current legislation affecting the local community or education and how they and those in other branches of government are affected by that legislation, 4) do other work to enrich understanding, or 5) work toward proficiency on other competencies.

V. Student Access: As plans to include competency-based pathways in the educational system are made, districts and schools are encouraged to consider how all students and parents, as well as the community, will know about and understand the concept and process as well as what it means for student learning.

VI. District Policy: Each district or school should develop policy that outlines district or school competency-based pathways.

Policy should include, but is not limited to:

- Student access.
- Connecting middle school students to high school teachers if other district policy provides for middle school students to earn high school credit.
- If there is a limit, and what that limit would be, to the number of credits through competency-based pathway that would be used toward high school graduation.

VII. Resources: Although there are many resources for information about competency-based education, the following sources are offered as a starting point for districts interested in working toward competency-based pathways for their students.

A. *Delivering on the Promise: The Education Revolution* (2009). R.A. DeLorenzo, W.J. Battino, R.M. Schreiber, and B.G. Carrio. Solution Tree: Bloomington, Indiana.

B. International Association for K-12 Online Learning (*i*NACOL)
http://www.inacol.org/research/competency/index.php
www.CompetencyWorks.org

1. *Cracking the Code: Synchronizing Policy and Practice for Performance-Based Learning* by Susan Patrick (*i*NACOL) and Chris Sturgis (MetisNet)

2. *It's Not a Matter of Time: Highlights from the 2011 Competency-Based Learning Summit* by Chris Sturgis (MetisNet), Susan Patrick (*i*NACOL) and Linda Pittenger (CCSSO)

C. Iowa Collaboration Website, including Task Force information:
www.IACompEd.com

D. Marzano study of the RISC competency-based education program
http://www.marzanoresearch.com/documents/RISC_vs_Non_RISC.pdf

E. Re-Inventing Schools Coalition (RISC)
http://www.reinventingschools.org/resources/results/

1. Among the results realized through the RISC program are the following:
- Significant, sustained increases in student achievement.
- Increases in the number of students applying to, attending, and remaining in college.
- Decreases in staff turnover.
- Significantly higher percentages of students passing high-stakes state assessments.

2. Re-Inventing Schools Coalition videos
http://www.reinventingschools.org/resources/video/

F. Research Base for Proficiency-based Instructional Practices: Drawing from empirically-based studies of teaching practice as well as practitioner-oriented prescriptions and frameworks for instructional practice, this research base provides a foundation for the attributes of proficiency-based teaching and learning.
http://www.k-12leadership.org/proficiency-project/research-base

G. *Off the Clock: Moving Education from Time to Competency (2012).* F. Bramante and R. Colby. Corwin: Thousand Oaks, California.

H. National website: www.CompetencyWorks.org

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