



AEBG Math Crosswalk Meeting Notes

Tuesday, October 10, 2017

The purpose of this meeting was to develop a draft crosswalk between the math Educational Functioning Levels (EFL) associated with the National Reporting System (NRS) and the descriptors for CB21 levels, which are associated with California community college levels below a transfer-level course. This crosswalk will help to establish equivalencies between measurable skills gains associated with scores on a federally-approved assessment test and the gains associated with moving from one level of the college basic skills sequence to the next, for the purpose of legislative reporting for the Adult Education Block Grant (AEBG). In addition, adult education consortia can leverage this crosswalk to support regional efforts to align curricula and determine placement methodologies.

The meeting was attended by math faculty from K-12 adult education providers, community college noncredit programs, and community college credit programs. In advance of the meeting, the group was given a draft crosswalk that had been prepared by a subject matter expert, as well as access to all of the source documents. The crosswalk used the competencies associated with the community college Common Assessment Initiative (CAI) to create greater specificity than is provided in the EFL and CB21 descriptors. The meeting was then spent discussing whether the draft alignment was accurate.

Several important issues were surfaced in the preliminary discussion.

- 1) The EFLs describe the skills that students should have when they *enter* a course, whereas the CB21 levels identify the skills students have when they *complete* a course. When the EFLs were evaluated as prerequisites for specific K-12 and community college courses, it revealed inconsistencies in specific concepts that are taught in the two systems, which means that it is not possible to create one-to-one equivalencies of individual EFLs and the CB21 levels.
- 2) One reason for this discrepancy is that K-12 schools are preparing students for their high school equivalency exam, which requires a lower level of quantitative reasoning than transfer-level coursework. Therefore, students need to take Intermediate Algebra as a bridge course when they transition to post-secondary in order to prepare for courses like College Algebra. It is less clear which courses students would need to prepare for college-level Geometry, Trigonometry, or Statistics courses.
- 3) Given the revision of the EFLs to conform to the new College and Career Readiness standards, the gaps between K-12 and community college courses may decrease over time (many adult schools are in the midst of shifting their curricula). However, other gaps in curriculum may increase, particularly given the emphasis on geometry and statistics in the new federal standards, which are not addressed in the CB21 rubric. Therefore, another meeting is needed to crosswalk the new EFL descriptors to the old EFLs, CB21, and the CAI competencies.

By the close the day, the group had established the following updated crosswalk between EFLs and CB21 levels:

EFL	CB21
Beginning Adult Basic Education Literacy	
Beginning Adult Basic Education	
Low Intermediate Adult Basic Education	
High Intermediate Adult Basic Education	CB21 D – Basic Math (Arithmetic)
Low Adult Secondary Education	CB21 C - Pre-Algebra
	CB21 B - Elementary/Introductory Algebra
High Adult Secondary Education	CB21 A - Intermediate Algebra

The group identified a number of skills that are not taught in Adult Basic Education, which means that the Low Adult Secondary Education course becomes a critical venue in which K-12 students need to master specific concepts and vocabulary in order to prepare for college coursework. For example:

- CB21 Level D (Basic Math) expects students to understand the relationship between the four orders of operations, includes exponents and scientific notation, references prime numbers, and requires students to use technology such as calculators
- CB21 Level C (Pre-Algebra) includes rational numbers
- CB21 Level B (Introductory Algebra) includes graphing points on the coordinate plane, maximizing area, and visualization of complex three-dimensional figures

Furthermore, while general concepts might overlap between the college basic skills sequence and Adult Secondary Education in K-12 schools, the complexity of examples given for CB21 B (Elementary/Introductory Algebra) goes beyond what is taught in most K-12 adult schools.

The group also noted that there were several concepts that appeared in the Common Assessment Initiative competencies that do not appear in the CB21 rubric, and therefore may not be taught consistently across the colleges. This means that a K-12 adult student who transitions to community college might lack key skills for college coursework at some colleges but not others.

These included:

- Inequalities and radical expressions
- Items that prepare students for geometry, a subject that has been eliminated from many community college offerings
- Items that prepare students for trigonometry, which is not taught at all colleges

Finally, the group noted that the CASAS test seemed to evaluate quantitative reasoning in a manner that was more contextualized than most curricula taught at either K-12 adult schools or community colleges. For example, students taking the assessment are given word problems where they are expected to use mathematical skills to solve multi-step problems in a real-world context, whereas classes focus more on procedural knowledge. As a result, students may advance up a sequence of courses in either the K-12 or community college context faster than they attain the cut scores associated with the EFLs.