



Competency Based Learning

Melrose Public Schools

October 6, 2015

Melrose Public Schools Range of Educational Opportunities

- The Melrose Public Schools is committed to providing a range of educational practices, services, and supports to all children regardless of categorization. Our vision is to be able to provide seamlessly the curriculum and instruction each child needs without categorizing or labeling students by ability or circumstances in spite of federal and state regulations that require the identification of students by subcategory.

Melrose Public Schools Range of Educational Options K-5

Grades K-5: Currently, Melrose Public Schools provides the following educational opportunities from grades Kindergarten through grade five. Each of the elementary schools adjusts the options to meet the needs of the students present in each class or each school at any given time.

- **MTSS and general supports:** Based on data collected for benchmarking and progress monitoring, students receive Tier I, Tier II, or Tier III supports, including remediation and enhancement. Tiered supports may include in class supports or enhancement options, direct services from the Title I tutor or Intervention specialists or any of the opportunities outlined below. Additionally, elementary teachers provide extra help before school.
- **Differentiation:** The teacher makes adjustments to content, materials, instruction, and expectations based on students' skills and interests. Data helps teachers to identify students at each tier/level of achievement and to identify supports for each student as needed. For example, in math, students in need of challenge may be provided math projects, advanced math tasks or problems to complete. In reading, students will engage in literature circles to discuss, read, and write about literature and nonfiction texts. Students in writing will be challenged to extend their work to include more detail and show more description or knowledge. Other means by which teachers are implementing differentiation are through project-based learning, science projects, and research papers.
- **Within-class intentional grouping:** The implementation of the workshop model in literacy and math supports within-class clustering in all elementary classrooms. The data referenced above guides the grouping. Additionally, the Hoover School has piloted across same grade classroom clustering. At the Lincoln School, grades three, four, and five have provided flexible grouping across all the classrooms within a grade level.
- **Grade Acceleration:** The district has had a procedure for first grade acceleration for some time. Recently, we added a procedure for Kindergarten acceleration.
- **Content-based Acceleration:** Content-based acceleration happens in individual cases from K-5. Students may move ahead in a subject within a classroom or move to a classroom above grade level. When it does occur, it is typically in math.
- **Special Education Practices:** If qualified, students receive appropriate supports through an Individual Education Program.
- **Alternative Academic Opportunities** -- These options may include online learning, independent research or study, or project-based learning. These projects can be done within or outside of the school setting by allowing the student to pursue a topic in greater depth using a variety of means and resources to produce a specific academic achievement and/or outcome.
- **Afterschool Experience:** Our elementary schools provide opportunities for our students through activities such as drama club, math club, Lego robotics' competitions, math club, computer clubs, and Global Child, a program that provides global language instruction.

Melrose Public Schools Range of Educational Options 6-8

Grades 6-8: Middle School affords more opportunities for differentiation and acceleration. The change to a subject based schedule as well as combining all students in one location at the middle school provides for more options in scheduling, the availability of more staff, sharing resources with the high school, and increased flexibility to develop different electives and after school options.

- **MTSS and general supports:** Based on data collected for benchmarking and progress monitoring, students receive Tier I, Tier II, or Tier III supports, including remediation and enhancement. At the middle school, tiered supports include the options below as well as extra help sessions after school.
- **Differentiation:** Similar to grades K-5, teachers provide differentiation by making adjustments to content, instruction, and outcome expectations. At the middle school, additional opportunities for group work, project based learning, individual extended learning opportunities, and research provide learning experiences that reflect student interest and ability.
- **Within-class intentional grouping:** Math and English Language Arts teachers may group students for based on data according to ability and for different purposes. For example, students may be grouped to read differentiated texts within the same class or math units may be compacted within a class for students who have mastered the skill and content.
- **Between-class intentional grouping:** This occurs in one of two ways. First, a block of time in the schedule allows students not requiring remediation to sign up for classes that provide opportunities to challenge themselves and explore subjects that interest them (Pull Out Model). The second means for between class groupings is accelerated classes available in grades seven and/or eight. Currently, students can qualify to take compacted or accelerated math or accelerated ELA in grades 7; Algebra I, accelerated ELA, and/or Latin I in grade 8 (Special Class Model).
- **Compacting:** In 2014-15, grade 8 students who took Algebra I also took a compacted math course during the third trimester to ensure they have covered the complete curriculum for both Math 8 and Algebra I. Beginning this year, identified students will take compacted 7/8 math in grade 7 prior to taking Algebra I in grade eight. Additionally, individual teachers may use compacting within their classrooms based on the results of pretesting. Again, this is most common in math.
- **Content-based Acceleration:** Some students may participate in higher-grade level classes, again, usually math. Content-based acceleration at the middle school includes, but is not limited to, students taking part in high school level classes, when appropriate. Additionally, identified students may take a blended learning or online course, such as Virtual High School.
- **Alternative Academic Opportunities:** Students participating in online learning, including online courses, high school courses, project based learning, or outside activities approved for credit waiver are engaged in alternative academic opportunities.
- **Special Education Practices:** If qualified, students receive appropriate supports through an Individual Education Program.
- **Extracurricular and Afterschool:** The middle school offers a number of options for students to explore their interests. This includes the Select Chorus, drama and musical productions, orchestra, Robotic Legos competitions, and Math League.

Melrose Public Schools Range of Educational Options 9-12

Grades 9-12: Because high schools are scheduled by course and level, the high school expands the opportunities and options even further. Students are able to select courses that meet their individual needs and interests. With the exception of specific courses required for graduation, most courses are offered across grade levels and ability levels.

- **MTSS and general supports:** Based on data collected for benchmarking and progress monitoring, students receive Tier I, Tier II, or Tier III supports, including remediation and enhancement. Similar to the middle school, the high school offers after school help. Additionally, high school students have flex block in the schedule to provide time to work with teachers and each other.
- **Differentiation:** Similar to other grade levels, teachers provide differentiation by making adjustments to content, instruction, and outcome expectations. At the high school, the student's age and level of independence support more opportunities for student led work, both individually and in groups.
- **Intentional Grouping Between-Classes:** This is the typical practice at high schools as students choose among college prep, Honors, and Advanced Placement classes.
- **Content-based Acceleration:** Advanced Placement courses, online and blended learning, independent study, and dual enrollment are forms of acceleration available at the high school. Virtual High School has also provided formal courses to students that are in need of additional programming.
- **Credit by Examination:** This option may be used for either credit recovery or acceleration. Currently, only the Global Languages department used credit by examination for acceleration. A student may "skip" a level if s/he demonstrates mastery on a district developed assessment, for example skipping French I and proceeding onto French II. Department directors are exploring how to provide this option in other content areas.
- **Alternative Academic Opportunities:** Students are able to participate in blended or online learning, dual enrollment, research projects, and outside activities for credit. The Senior Internship is another alternative academic opportunity that occurs in the second half of senior year.
- **Dual Enrollment:** Students may take college courses for high school credit. Sometimes this is to pursue a particular interest. Other times, it is to provide acceleration in a specific subject.
- **Special Education Practices:** If qualified, students receive appropriate supports through an Individual Education Program.
- **Extracurricular, Afterschool, and Field Experiences:** The high school provides the most opportunities for such experiences. Some examples are Mock Trial, Model U.N., drama, musicals, band, orchestra, chorus, art club, global language clubs, student council, and the Tenacity Challenge. Additionally, the Senior Internship is an example of independent study that is also a field experience.

Educational Options Implementation

In determining which students would benefit from any of the educational options we provide, we look at the following:

- Student work, including evidence of ability and mastery in the topic/content.
- Student interest and motivation in the topic/content.
- Student performance data from a variety of assessments, including formative and summative assessments, portfolios, projects, standardized tests, etc.
- Ability of the student to work independently and productively.
- Parental and student input.

Competency Based Learning*

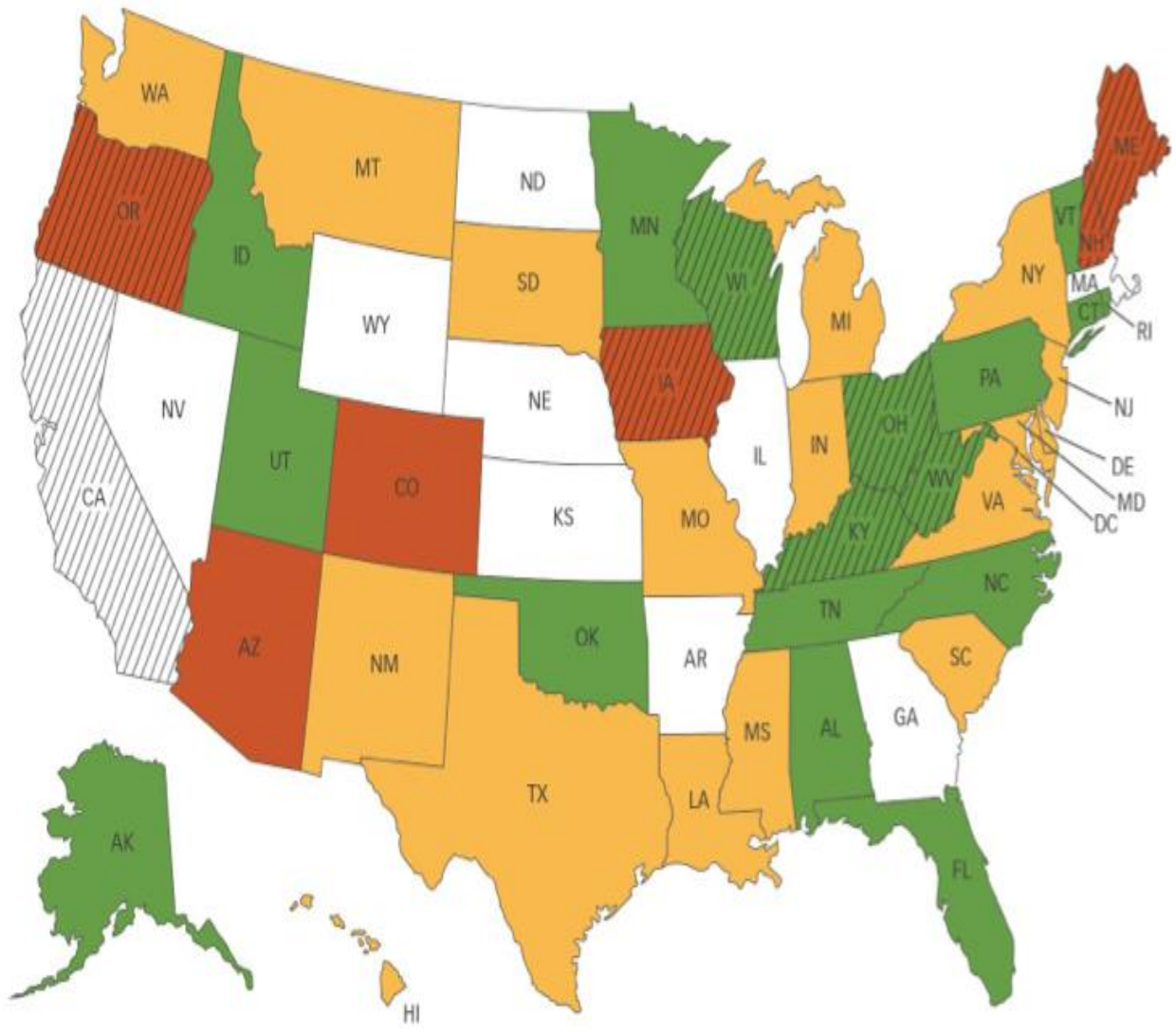
Defined

A simple definition of competency based learning is “when students work at their academic level, understanding what they are learning and what they need to do next.” (*Understanding Competency Education in K-12*, iNACOL)

The five components of competency-based education are:

- Students advance upon mastery.
- Competencies include explicit, measureable, transferable learning objectives that empower students.
- Assessment is meaningful and a positive learning experience for students.
- Students receive timely, differentiated support based on their individual learning needs.
- Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions. (Patrick & Sturgis, 2013)

*Also called proficiency based learning or performance based learning or mastery based learning.



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Advanced States
 Those states with clear policies that are moving towards proficiency-based education; more than just an option.

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Developing States
 Those states with pilots of competency education, credit flexibility policies, or advanced next gen policies for equivalents to seat-time.

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Emerging States
 Those states with waivers, task forces, and limited policies.

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No Policies in Competency Education
 States with seat-time and no competency education policies.

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ILN States
 The Council of Chief State School Officers is working with states to identify new designs to be scaled for widespread implementation..

Competency Based Education Policy across the States

Principles of Competency Based Learning

Ten Principles of Proficiency-Based Learning* describe the common features found in the most effective proficiency-based systems:

- All learning expectations are clearly and consistently communicated to students and families, including long-term expectations (such as graduation requirements and graduation standards), short-term expectations (such as the specific [learning objectives](#) for a course or other [learning experience](#)), and general expectations (such as the performance levels used in the school's grading and reporting system).
- Student achievement is evaluated against common [learning standards](#) and performance expectations that are consistently applied to all students regardless of whether they are enrolled in traditional courses or pursuing alternative [learning pathways](#).
- All forms of [assessment](#) are [standards-based](#) and [criterion-referenced](#), and success is defined by the achievement of expected standards, not relative measures of performance or student-to-student comparisons.
- [Formative assessments](#) measure learning progress during the instructional process, and formative-assessment results are used to inform instructional adjustments, teaching practices, and [academic support](#).
- [Summative assessments](#) evaluate learning achievement, and summative-assessment results record a student's level of proficiency at a specific point in time.

Principles of CBL, cont.

- Academic progress and achievement are monitored and reported separately from work habits, character traits, and behaviors such as attendance and class participation, which are also monitored and reported.
- Academic grades communicate learning progress and achievement to students and families, and grades are used to facilitate and improve the learning process.
- Students are given multiple opportunities to improve their work when they fail to meet expected standards.
- Students can demonstrate learning progress and achievement in multiple ways through [differentiated](#) assessments, [personalized-learning](#) options, or alternative [learning pathways](#).
- Students are given opportunities to make important decisions about their learning, which includes contributing to the design of learning experiences and learning pathways.

**Leadership in Action: How Does Proficiency Based Learning Work*

CBL: Key Elements

Teachers are very clear about what students need to learn. In every class, students know exactly what teachers expect. The learning expectations and outcomes for the course are clearly described and communicated, and students will know precisely where they stand throughout the course.

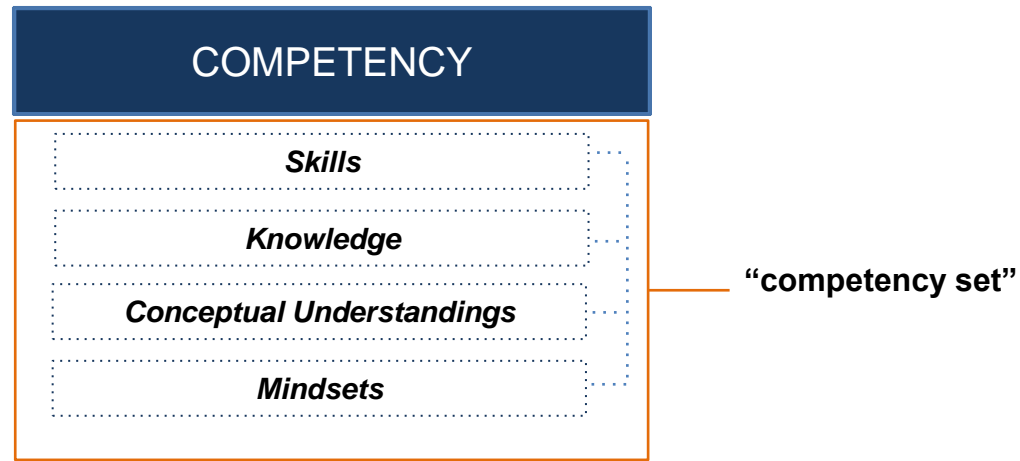
Common, consistent methods are used to evaluate student learning. Proficiency-based learning [i.e., competency education] applies the same standards to all students, while teachers use consistent methods of evaluating and reporting on student learning — everyone knows precisely what grades stands for and what each student has learned.

While learning expectations are fixed, teachers and students have more flexibility. Teachers can be given more flexibility in how they teach and students can be given more choice in how they learn while maintaining clear learning expectations and common and consistent evaluations. As long as students meet the course expectations and can demonstrate mastery, teachers can teach and students can learn in the ways that work best for them. □

All students must demonstrate what they have learned before moving on. Before students can pass a course, move on to the next grade level, or graduate, they must demonstrate that they have achieved the learning expectations and demonstrated proficiency in specified competencies. If students fail to meet learning expectations, they are given more support and instruction, more time to learn and practice, and more opportunities to demonstrate progress.

Competency*

A **set** of related skills, knowledge, conceptual understandings, and mindsets that involve the *application or creation* of knowledge and that encompass *subject-specific* as well as *cross-disciplinary* constructs.



IMPORTANT NOTES:

- Competencies can be grouped into large strands (“Algebra I”) or big ideas (“21st Century Skills”).
- While a competency does include *discrete skills and knowledge* within its “set,” we believe that **if it does not require a rubric to assess, it is NOT a competency.**

* Slides 12, 13, 14, 15 from *Mastery-based Education Design; Key Terms and Definitions, February 2014*, Office of New School Design/School District of Philadelphia

Each competency is written as a statement that describes how the “competency set” is used for a **specific purpose**.

Math Example (CCSS):

Use probability to evaluate outcomes of decisions.

Weigh possible outcomes of a decision by **assigning probabilities** to payoff values and **finding expected values**

Use probabilities to make fair decisions

Analyze decisions & strategies by applying probability concepts

Science Example (NGSS):

Use periodic table to predict the relative properties of elements.

Analyze and interpret data to determine similarities and differences in findings.

Reason abstractly and quantitatively.

Model with mathematics.

Use variables to represent quantities in a real-world problem, and construct simple equations to **solve problems**.

ELA Example (CCSS):

Analyze and critique texts and support claims and reasoning with sufficient evidence for intended purpose and audience.

Constructs clear, well-developed argument that demonstrates engaged reading and original critical thinking

Develops relevant, significant claims that support the argument

Addresses key questions, counter-claims, or alternative interpretations to sharpen the argument when appropriate

Interdisciplinary Skill:

Use collaboration skills to complete a task effectively with individuals or groups.

Initiates opportunities to participate and cooperate with diverse groups

Employs personal strengths and skills to resolve conflicts to achieve consensus

Assumes leadership roles in groups and encourages the same in others, sharing responsibility and embracing high standards

Proficiency*

A rating that meets the required level of performance on an assessment that serves as evidence toward advancement.

Planning & Carrying out Scientific Investigations (Context: Performance Task)

Context: Examination

%


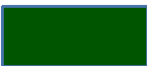
OR

<i>Scoring Domain</i>	<i>emerging</i>	<i>developing</i>	<i>proficient</i>	<i>advanced</i>
<i>Collecting Data</i>	Gathers data from a single trial of the experiment Limitations or precision of data are not mentioned	Gathers data from several repetitions of the experiment that are clearly outside the reasonable range Mentions limitations or precision of data	Gathers data from several repetitions of the experiment that are not consistent within a reasonable range Explains limitations or precision of data	Gathers data from several repetitions of the experiment that are consistent within a reasonable range Explains limitations or precision of data and impacts on conclusions

Mastery*

A performance level that implies proficiency has been demonstrated **multiple times** and in **multiple ways** or contexts.

	9.A1.1			9.A1.2			9.A1.3		
<i>Brown, Isaac</i>	developing	proficient	advanced	MASTERY			advanced	emerging	emerging
<i>Collins, Alex</i>	proficient	developing	emerging	emerging	emerging	emerging	emerging	emerging	emerging
<i>Dale, Hector</i>	MASTERY			MASTERY			proficient	emerging	emerging
<i>Ramos, May</i>	proficient	advanced	developing	emerging	advanced	advanced	proficient	proficient	developing
<i>Schmidt, Sarah</i>	MASTERY			MASTERY			emerging	emerging	emerging
<i>Wess, Lisa</i>	MASTERY			advanced	developing	advanced	emerging	emerging	emerging

	emerging
	developing
	proficient
	advanced

CBL Practices v. MPS Practices

- Standards based curriculum
 - Clearly stated learning objectives that emphasize competencies
 - Curriculum based assessments
 - Emphasis on performance tasks that apply knowledge and skills
 - Data driven decisions
 - Personalized learning and differentiated student support well established
 - Emphasis on mastery not seat time
 - Standards based grading for all content and skills
- Standards based curriculum
 - Developing learning objectives (Understanding by Design model)
 - Curriculum based assessments
 - Developing performance tasks
 - Data driven decisions
 - Array of educational options and tiered support, but not fully institutionalized
 - First stage of personalized learning begun this year
 - Traditional time on learning expectations
 - Standards based grading k-5 only

Possible Options for Our Schools

- Continue with the current approach increasing educational options and improving differentiation
- Develop a plan to transition to CBL across the district K-12
- Evolve the current approach into CBL for 6-12 only
- Develop a hybrid of traditional and CBL by level (k-5, 6-12)

Next Steps

- Publicize information about Competency Based Learning.
- Hold public forum with opportunity for questions and discussion (Oct/Nov TBD)
- School Committee votes on whether to proceed (Dec. 8)
- If choose to proceed, establish Task Force to explore model specifics, including logistics, legalities, instruction and curriculum needs, training needs, timetable, etc.

Competency Based Learning Resources

- <http://edglossary.org/competency-based-learning/>
- http://www.ccrscenter.org/sites/default/files/AsktheTeam_CBEbrief.pdf
- <http://www.ed.gov/oii-news/competency-based-learning-or-personalized-learning>
- <http://www.competencyworks.org/about/competency-education/>
- <http://competencyworks.pbworks.com/w/page/67945372/Detailed%20Definition%20of%20Competency%20Education>
- <http://www.competencyworks.org/insights-into-implementation/support-for-teachers-in-a-competency-education-school/>
- http://www.education.nh.gov/innovations/hs_redesign/index.htm
- <http://www.edweek.org/ew/articles/2015/03/18/competency-based-education-is-working.html>