Student-Centered Learning Continuum

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About the Nellie Mae Education Foundation

Founded in 1990, the Nellie Mae Education Foundation serves as New England's largest public charity focused solely on education. Since 2008, Nellie Mae has been a prominent champion of student-centered learning (SCL), supporting efforts to study, promote and implement practices in which learning is personalized, engaging, competency-based, and occurs anytime and anywhere.

The Nellie Mae Education Foundation envisions a region where all youth have access to excellent and equitable public education that prepares them to succeed and thrive in community. To get there, Nellie Mae is committed to championing efforts that prioritize community goals that challenge racial inequities and advance excellent, student-centered public education for all New England youth.

Nellie Mae recognizes that there are significant barriers that stand between too many New England students and their success. Ensuring excellent learning opportunities for all youth will require the concerted effort of individuals, organizations and communities to challenge current practices and structures that predictably limit achievement of young people of color and those in poverty.

Today, we know more than ever about how students learn—but traditional school systems aren't providing the best environments to prepare every student for success. Students engage with learning in different ways, succeed through different pathways and experience different barriers to success. Public schools must allow for this variety, invite students to succeed through multiple pathways, and acknowledge the barriers—including institutional ones—that students face as well as the role we all have in removing those barriers.

Student-centered learning engages students in their own success and incorporates their interests and skills into the learning process. Rather than having educators hand down information, students can engage with teachers and their peers in real-time, preparing them to participate in a skilled workforce later in life. Student-centered approaches to learning highlight four key tenets that work in concert with each other: learning is personalized; learning is competency based; learning happens anytime, anywhere; and students take ownership of their learning.

About the Continuum

Nellie Mae created this Student-Centered Learning Continuum (SCL Continuum) to establish the characteristics of high-quality, student-centered learning in classrooms, schools, and districts. It's important to us that this set of criteria is clear and measurable and allows us to communicate the Foundation's vision for the most dramatic and rigorous renditions of student-centered learning.

This continuum is based upon existing research and cutting-edge practice, incorporates the experiences of experts and practitioners, and acknowledges the contexts in which classrooms, schools, and districts operate. Student-centered learning is still relatively new. It is a concept that blurs and questions the boundaries of traditional education systems and organizations. Therefore, an explicit set of principles supported by a set of clear and measurable criteria is a key underpinning to large-scale implementation.

The research base for this document is the result of a thorough review of the empirical research literature; many of the student-centered learning elements represented here are backed by ***research*** showing positive outcomes for students. Research may also support other elements of SCL in the continuum, though that research may not provide causal evidence of the relationship between those elements and outcomes. Nellie Mae also consulted the existing practice base and connected with education experts and district practitioners to inform the elements of SCL that are not yet represented in the literature. [Elements of SCL not yet linked to positive outcomes in the research literature are marked with a star (*).] In doing so, we hope the SCL Continuum represents the best of what we know works in education and what we see as innovative practices that build upon existing evidence. Over time, we hope to develop a student-friendly version of the SCL Continuum.

Key definitions

We use the term "educator" to indicate any person in the learning community who guides and coaches student learning toward defined outcomes. This includes teachers, administrators, and support specialists, as well as staff in community-based organizations and businesses who partner with schools to expand the classroom. Similarly, the term "learning environment" indicates the myriad of locations a student may experience their learning, including, but not limited to, classrooms within a school building, students' homes, community-based organizations, local businesses, and other settings.

Equity

In many places in our region and in our country, innovative, student-centered learning is here. It is just not evenly distributed. In New England, a child's neighborhood, economic status, and race still too often predict whether they have access to the tools and resources that are necessary to succeed.

Data show that:

1. Overall, outcomes have not moved, despite investments by Nellie Mae and others in student-centered learning;

2. Race and socio-economic status continues to be a durable predictor of student outcomes;

3. Given demographic trends, particularly the rapid growth of students of color in all states of the region and the increasing demand for a highly educated workforce, student outcomes could get worse overall as well as more racially disparate without a deliberate course correction.

For us, this demands a greater focus on racial and economic equity when it comes to educational opportunity and achievement, and compels us to thoughtfully and strategically review our strategy to ensure we are fulfilling our mission. Applying a racial equity lens is essential for analyzing and solving problems that have endured for generations, impact individuals and communities of color most acutely, and ultimately affect ALL people, whether in other marginalized or privileged groups.

The practices in the SCL Continuum are necessary for rigorous and high-quality SCL, but they are not sufficient for the development of an equitable SCL system. We assume there are deeper system issues and impediments that must be addressed along with implementing SCL. The continuum is currently based in evidence-based practices, and the evidence base around what SCL practices to equitable outcomes is still evolving. We look forward to incorporating this data as it comes; we plan to integrate equity throughout the SCL Continuum as our strategic focus evolves. We hope users of this document—practitioners, students, community members, the research community, and others—will feel comfortable sharing additional information and feedback about the continuum, which we can then use to make refinements.

How to Use the Continuum

This continuum is intended to provide a rich description of practices associated with SCL and is not meant as an evaluative tool. We believe this document can be a formative tool through which a learning community examines its desired progress toward becoming a truly student-centered learning setting.

Each tenet of SCL is composed of numerous strategies, indicated by each row of the SCL continuum; the columns of the continuum represent the extent to which SCL is present in a learning environment. The furthest left column represents a learning environment with limited SCL present, while each successive column to the right represents a progression toward high-quality SCL implementation. We recognize the way in which we frame the practices in each column may not match all learning environments; we plan to refine this language as we learn more from practitioners. A learning community may notice as it becomes more student centered that some elements of SCL may be more advanced than others; this is typical and represents the transition from teacher-directed to student-led activities. Because every context is different, we don't believe there is a purposeful path every learning environment needs to follow to high-level SCL; progressions towards SCL are more fluid in practice. As referenced above, we see this as an evolving document that we will regularly update with input from the field to best represent the realities of a learning community's transition to SCL.

Systems change toward a student-centered paradigm is a comprehensive and complex process that must be managed well to be successful. As a learning community moves from a traditional setting toward a more student-centered one, it's expected that some aspects of SCL will move quickly toward high level while others remain emergent. The columns of the continuum represent the phases by which educators can move from teacher-directed classrooms to student-led settings.

Finally, we hope this document can be used in tandem with the ***Educator Competencies for Personalized, Learner-Centered Teaching*** and the ***Leadership Competencies for Learner-Centered, Personalized Education***.These tools build on and push beyond the best existing teaching and leader competencies and standards to capture what educators need in order to create and thrive in student-centered learning systems.

Personalized Learning

Personalized learning recognizes that students engage in different ways and in different places. Students benefit from individually-paced, targeted learning tasks that start from where the student is, formatively assess existing skills and knowledge, and address the student's needs and interests.[1]

Limited SCL	Emergent SCL	Intermediate SCL	High-level SCL
Multiple pathways through content are provided and pursued, in terms of both individualized pathways through courses and individualized pathways through content within learning experiences			
Educators (teachers in any setting, staff, and administrators) choose the learning activities for the class as a whole	Educators talk with students to get input about the learning activities in which students participate	Educators allow students to exercise some choice over the learning activities in which they participate, such as whether they will work in a group or individually	Students and educators work together to choose the learning activities in which students participate, thereby cultivating independence and responsibility for their own learning
Educators prescribe the order of content and experiences for the class as a whole throughout the school year	Educators talk with students about the order of content and experiences that educators choose for the class as a whole	Educators lead discussions with students to choose and plan the order of content and experiences for individual students	Students lead discussions with educators in each learning setting to choose content and experiences based on relevance and high expectations, and plan an order of content that makes sense for their learning needs and allows them to meet individualized goals
Educators do not have support to connect with students beyond their academic learning	Educators are supported with time and resources at the beginning of the school year to learn about students' interests	Educators are supported with time and resources to make individual efforts to connect with individual students about their interests and experiences	Educators throughout the learning environment continually utilize a variety of methods to connect with students by learning about their background, interests, experiences, and perceptions
Educators provide instruction to the class as a whole, using the same instructional materials and supports for most students	Educators provide some personalized content, instructional materials, and support based on general student learning levels	Educators work to understand students' learning levels, experiences, and interests to inform personalized content, instructional materials, and support	In partnership with students, educators in all settings engage in efforts to recognize, respect, and integrate student strengths, interests, experiences, cultural background, home context, and learning level as assets, and personalize student content, materials, and supports based on this information
Educators prescribe pathways through courses that all students follow	Educators guide students through general learning pathways in which students can choose some courses that are tailored to their learning goals	Educators collaborate with students to develop and occasionally revise individual learning plans in which pathways through learning best meet each students' learning needs/goals (meaning some students may skip a unit or course)	In partnership with students, educators in all settings engage in efforts to recognize, respect, and integrate student strengths, interests, experiences, cultural background, home context, and learning level as assets, and personalize student content, materials, and supports based on this information

Personalized Learning

Limited SCL	Emergent SCL	Intermediate SCL	High-level SCL
* Students do not participate in advisories or group meetings (i.e., small groups of students meeting with educators to connect about their goals, interests, needs, and planning)	* Students participate in educator-directed advisories or group meetings (or similar structures) that provide time to develop personal connections	* Students collaborate with educators to co-lead advisories or group meetings that provide time for educators and students to develop connections and reflect on student learning needs and goals	* Students guide their own advisory sessions or group meetings with educators that result in deep personal connections and students making decisions about coursework, learning opportunities, and goals
* Parent-teacher conferences are run by educators and are used to highlight where students are falling short of expectations	* Parent-teacher conferences are run by educators and are used to highlight students' areas of growth and opportunity	* Parent-teacher conferences are co-led by educators and students, and are used to highlight students' areas of growth, opportunity, and goals	* Student-led parent-teacher conferences are designed by students and are used to locate areas of success and challenge, and the supports/resources needed to meet goals
Pacing, timing, and delivery of instruction are varied			
Educators require all students in a classroom work on the same topic within a curriculum unit at the same time	Educators allow groups of students to progress through learning topics at varied paces based on grades	Educators allow individual students to progress through learning topics at varied paces based on their skill development and learning level	Students and educators collaborate to determine the pace at which students should move through learning topics, based on knowledge and skills students need to master in order to meet goals
* Student learning is rooted in a traditional semester/trimester schedule	* The school allows educators to suggest adjustments to student learning progression (pace + content) within the traditional semester/trimester structure	* The school allows educators to suggest adjustments to student learning progression (pace + content) in a more flexible yearly schedule/structure	* Student learning is steered by learning competencies assignments and schedules are flexible and operate without the constraints of the semester/trimester structure; they are revised regularly using assessment information
Educators require all students in a classroom to progress through units at the same pace regardless of their learning needs, and/or the school directs students into different high- and low-expectancy groups (e.g., "honors math")	Educators allow students to progress faster or slower through content within a specified time frame (e.g., a class meeting period or a week)	Educators allow students to progress faster or slower through content and provide additional support opportunities based on their learning needs	Although the pace is varied, each student receives the scaffolded and differentiated support to accelerate their learning that is appropriate for reaching college, career, and life goals, even when unequal resources are required to achieve a more equitable result

** Throughout this document, elements of SCL that are not yet linked to an established research base are marked with a star.*

Personalized Learning

Limited SCL	Emergent SCL	Intermediate SCL	High-level SCL
* Technology is rarely used in the learning environment or is used to deliver the same content to all students in a class	* Students use technology to access digital curricula or enrichment materials	* Students use technology to remediate learning gaps (access supplemental support materials) and manage their learning materials (e.g., assessments and student work)	* Students use technology not to replace educators and in-person learning experiences, but to enhance their learning through a fully customized learning platform based on individual needs and interests, to manage progression through content, and to manage their learning materials
Multiple ways for students to demonstrate mastery are provided and pursued			
Educators require all students in a classroom to show their learning by using the same assignments and assessments	Educators allow students to show their learning through a small number of different assignments and assessments	Educators allow students to show their learning through assignments and assessments that match students' learning needs	Students collaborate with educators to create, co-design, adapt, or choose and use challenging assignments and assessments that best show their learning when they are ready to do so
Educators move on to new material on a schedule, even when some students do not meet minimum performance levels on work and assessments	When students do not meet minimum performance levels on assessments, educators provide general additional support to ensure students progress to new material on schedule	When students do not meet minimum performance levels on assessments, educators provide additional support tailored to student needs to ensure students progress to new material	Educators and students together frequently review individual student data and design additional supports to address learning needs on a schedule suited for their goals, especially when students do not meet minimum performance levels on assessments
Students submit work and assessments to educators with limited opportunities to revise	Students submit work and assessments to educators with some opportunity to revise based on feedback	Together, educators and students collaborate to review educator feedback on student work and assessments to determine if and how a student should revise	All students have the opportunity to collaborate with educators to review educator and/or peer feedback on their work and assessments (including when they do not meet minimum performance standards); students are able to revise on an agreed-upon timeline appropriate for meeting individual goals

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Competency-Based Education

Students move ahead when they have demonstrated in multiple ways how they have mastered content, not when they've reached a certain birthday or endured the required hours in a classroom. This concept of achieving competencies—applying knowledge to different contexts—is sometimes called proficiency- or mastery-based learning.[2]

Limited SCL	Emergent SCL	Intermediate SCL	High-level SCL
Students are provided with and pursue clear, measurable, competency-based learning targets, rubrics, and pathways			
Only a few stakeholders in the school community develop and understand what schoolwide and/or course competencies are	Some stakeholders in the school community (educators and administrators only) develop and understand what schoolwide and/or course competencies are, and how they're taught and assessed	Some stakeholders in the learning community develop learning competencies; many stakeholders in the school community (at least students, educators, and administrators) understand what learning competencies are, and how they're taught and assessed	A dialogue with all stakeholders in the learning community—students, educators, parents, administrators, business leaders, community members, and others—results in co-developed learning competencies focused on college, career, and life outcomes, and include explicit, measurable, transferable learning objectives that empower students
If they exist, schoolwide and/or course competencies are not shared with or accessed by students or parents	Students and educators can access schoolwide and/or course competencies aligned to explicit learning objectives	Students and educators occasionally access and discuss clear learning competencies that are aligned to student progression toward explicit learning objectives and college- and career-readiness goals	Students, educators, parents, administrators, business leaders, and community members work collaboratively to regularly access, discuss, and use learning competencies focused on explicit learning objectives and college, career, and life goals
Only a few, if any, course options, learning tasks, materials, and assessments are aligned to schoolwide and course competencies	Some course options, learning tasks, materials, and assessments are aligned to schoolwide and course competencies	Many course options, learning tasks, materials, and assessments are aligned to learning competencies; student progress toward competencies is reported	Each student's learning experience (all course options, learning tasks, materials, and assessments) is aligned to learning competencies; student learning is based on the demonstration of proficiency in each competency (and not through grades)
* Students are organized into age-based cohorts	* Students move through course material at variable pace, but progress through grade levels with their age-based cohort	* Students are grouped by general progressions toward competencies (e.g., two traditional grade levels grouped together) rather than by age-based cohort	* Students collaborate with educators to identify where they are on their learning progressions instead of a grade construct, and collaborate with other students working toward mastering the same content, regardless of age

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Competency-Based Education

Limited SCL	Emergent SCL	Intermediate SCL	High-level SCL
Students access assessments when ready to demonstrate mastery and earn credit			
Students' progression and graduation is tied to required credit hours and seat time, or competency-based methods are used to track students based on perceived ability differences	Students move ahead in their age-based cohort based on seat time and credits, but are able to access credit recovery if they are behind or engage in more challenging activities as they master content and competencies	Students' academic progression is based on their capacity to demonstrate competencies; that is, students receive credit and move on when mastery is demonstrated, or may "test out" of some material	Students' academic progression is based not on their age, number of days in a classroom, nor participation and effort, but based on their capacity to demonstrate core competencies in multiple ways; as a result, students of different, developmentally appropriate ages are often mixed together in the learning environment
Educators direct the assessment of course competencies without student involvement, creating grades based on average of students' test and quiz scores, homework completion, and class participation	Educators choose how and when students are assessed on their mastery of course standards with limited student involvement	Educators lead a discussion with students about how and when to demonstrate mastery of competencies	Assessment is a meaningful learning experience: when they are ready, students lead a discussion with their educators to choose multiple performance-based tasks that demonstrate mastery of one or more competencies
Educators rely on summative assessments provided by the school or curricular materials to inform the learning and instructional strategy for the classroom as a whole	Educators rely on summative and some formative assessments provided in curricular materials on a regular basis to inform the learning and instructional strategy for each student	Educators use a variety of formative assessments aligned with learning competencies on a regular basis to inform the learning and instructional strategy for each student	Educators use multiple, frequent formative assessments—including self-assessment, exit tickets, and peer reviews—in a timely manner to engage learners in their own growth, monitor learner progress toward competencies, guide educators' and learners' decision-making, and to communicate with families
The learning environment features high expectations and challenging tasks			
Educators have high expectations for all students, but follow prescribed curriculum regardless of each students' learning progression and challenge level	Educators have high expectations for all students, and ensure students in their classrooms access rigorous and challenging tasks	Educators hold high expectations for all students, and ensure each student accesses rigorous and challenging learning tasks and assessments aligned with competencies	The learning community (in and out of school) holds high expectations for their students, and educators recommend to students the most appropriate next steps, ensuring each student accesses rigorous and challenging learning pathways, courses, learning tasks, and assessments aligned with competencies

Anytime, Anywhere

Learning takes place beyond the traditional school day, and even the school year. The school's walls are permeable—learning is not restricted to the classroom.[3]

Limited SCL	Emergent SCL	Intermediate SCL	High-level SCL
Students rarely engage in learning activities aligned with their own interests, experiences, and real-world applications	Students engage in some learning activities outside the classroom aligned with their own interests, experiences, and real-world applications	Students engage in learning activities—both inside and outside the classroom—aligned with their own interests, experiences, and real-world applications, and goals	Students engage in authentic, meaningful learning activities—both inside and outside the classroom—that are aligned with learning competencies and their own interests, experiences, real-world applications, and goals and build connections and social capital
Students rarely engage in learning opportunities outside of formal classroom learning during the school day or school year, and receive academic credit only for classroom learning	Students engage in expanded learning opportunities outside of formal classroom learning during the school day or year, such as internships or summer projects, but do not receive credit	Students engage in expanded learning opportunities outside of formal classroom learning during the school day or year, such as internships or summer projects, for elective credit	Students engage in expanded learning opportunities outside of classroom learning during the school day or year, such as internships, community-based learning, or service-learning opportunities, for full academic credit
* Students rarely engage with community members and content experts	* Students are able to interact with community members and content experts to inform class work and projects	* Students' learning environment expands beyond a school classroom, and students interact and build relationships with community members and content experts	* Students' learning environment expands beyond a school building, allowing them to build connections and relationships as they interact with people and organizations that enrich student learning, and increase access to community resources and supports as part of project-based, virtual, and real-world learning experiences
Students rarely access digital technologies for note taking or research activities	Students access digital technologies in the classroom (e.g., as part of a lesson or to retrieve supplemental materials)	Students access digital technologies in the learning environment during and after school to supplement classroom learning (e.g., formative assessments online)	Students are provided with digital technologies and curriculum that enhance a rigorous learning environment while allowing them to fluidly access learning systems and learn from any location and at any time
* Educators lead classrooms in which students experience content areas as distinct subjects and school schedules are rigid based on student age	* Educators have flexibility in designing the layout and schedule of some students' learning environment based on their needs	* Educators collaborate to design a learning environment that presents content-based concepts within and across disciplines through a variety of perspectives, including interdisciplinary projects and small-group learning	* The school's walls and schedules are considered permeable, allowing students to have different schedules and access varied grouping strategies (e.g., individual work, small-group work, 1:1 with a mentor/teacher, interdisciplinary classes) based on students' needs

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Student-Owned Learning

Student-centered learning engages students in their own success—and incorporates their interests and skills into the learning process. Students support each other's progress and celebrate success.[4]

Limited SCL	Emergent SCL	Intermediate SCL	High-level SCL
Educators choose the content for the class as a whole	Educators provide some choices in the content students learn	Educators encourage students to have choice in the content or setting in which they learn based on their experiences and interests	Students are active participants in their learning by frequently engaging in the design of their learning and exercising choice in the content or setting in which they learn, and take responsibility for setting and meeting goals
Educators decide the type and rigor of student learning activities and tasks	Students have the ability to develop engagement and agency by choosing from a list of challenging learning activities and tasks	Students demonstrate engagement and agency by choosing challenging learning activities and tasks that align with college- and career-readiness standards	Students are empowered to choose challenging learning activities and tasks, and can explain how these choices align with college- and career-readiness standards and goals for life beyond high school
Educators rarely provide activities or lessons for students to build knowledge, attitudes, and skills necessary to learn and be successful in school and life (e.g., social-emotional skills related to achieving goals and managing emotions)	Students engage in workshops or discrete lessons to address the knowledge, attitudes, and skills necessary to learn and be successful in school and life	Students engage in integrated lessons to learn about the knowledge, attitudes, and skills necessary to learn and be successful in school and life; educators support developmentally appropriate processes used to make choices, monitor progress, and set goals	The school acknowledges a student's ability to learn is influenced by a range of factors and the formal curriculum includes skills that prepare students to be successful; students learn to take ownership of their learning by working with educators to develop appropriate social, emotional, and life skills to be successful in achieving goals and in college and career
Students rarely have the opportunity to build metacognitive strategies through activities such as creating learning activities, interpreting educator/peer feedback, and self-assessing their own learning	Educators talk with students about developing metacognitive strategies, and allow students to participate in the creation of some learning activities, interpreting educator/peer feedback, and self-assessing their own learning	Students lead collaborate discussions and educators model behavior to develop metacognitive strategies, including creating learning activities, interpreting educator/peer feedback, self-assessing their learning, and processing on defined rubrics	Students develop metacognitive strategies and steer their own learning with guidance from educators, including creating learning activities, interpreting educator/peer feedback, and self-assessing their learning and processes on defined rubrics; at the same time, educators build students' ability to learn from peers through modeling and feedback

Student-Owned Learning

Limited SCL	Emergent SCL	Intermediate SCL	High-level SCL
Educators use summative assessments to measure student learning most of the time	Educators use formative assessment to adjust instruction for groups of students	Educators use formative assessment to adjust instruction for individual students and engage students in the learning process	Students build agency by participating in frequent formative assessments to locate specific targets for improvement and to identify strategies and resources to achieve at a higher level
* Educators provide limited opportunities for students to contribute to classroom- or school-based decision-making	* Educators provide opportunities to provide input on classroom decision-making, such as activities for the day or learning modalities (e.g., tablet or group work on real-world tasks)	* Educators provide opportunities for students to contribute to decision-making processes about the immediate learning environment (i.e., classroom), including restorative circles and class meetings	* Educators provide opportunities for students to contribute to decision-making processes, including participatory action research, place-based education, restorative circles, and class meetings

** Elements of SCL that are not yet linked to an established research base are marked with a star.*

ENDNOTES

[1] Elements of the Personalization tenet were built upon key findings in the following sources:

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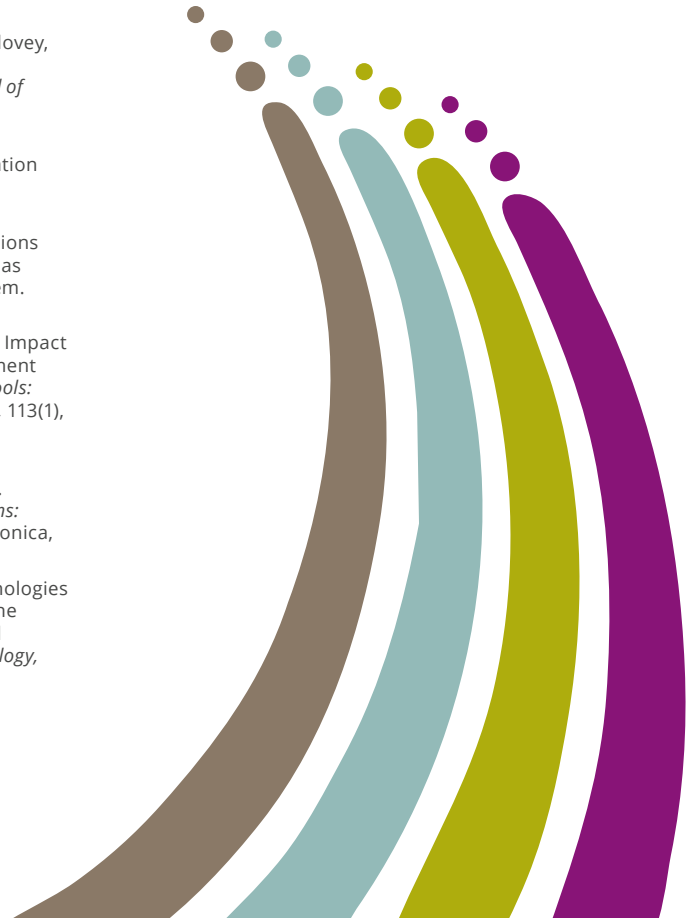

[2] Elements of the Competency Based tenet were built upon key findings in the following sources:

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