



The Center on Innovations in Learning (CIL) is a national content center established to work with regional comprehensive centers and state education agencies (SEA) to build SEAs' capacity to stimulate, select, implement, and scale up innovations in learning.

Learning innovations replace currently accepted standards of curricular and instructional practice with new practices demonstrated to be more effective or more efficient in the context in which they are applied.

The Center on Innovations in Learning is administered by the Institute for Schools and Society (ISS) at Temple University, Philadelphia, Pennsylvania, in partnership with the Academic Development Institute (ADI), Lincoln, Illinois.

The Center is funded by the U.S. Department of Education, Office of Elementary and Secondary Education (OESE), under the comprehensive centers program, Award # S283B120052-12A.

The opinions expressed herein do not necessarily reflect the position of the supporting agencies, and no official endorsement should be inferred.

Personal Competencies

in Personalized Learning

Sam Redding
Center on Innovations in Learning

Acknowledgements

I am greatly indebted to my colleagues at the Center on Innovations in Learning—Allison Crean Davis, Marilyn Murphy, Pam Sheley, Janet Twyman, Herb Walberg, and Mark Williams—for their critiques of drafts of this publication. Special thanks to Janet Twyman for adding the technology-aided resources to the templates and offering great instructional strategies. Rich discussion of the paper’s topics with Greg Austin, Ian Guidera, Jason Snipes, Fred Tempes, and Catherine Walcott at WestEd proved invaluable and kept me humble. A meeting with Carol Dweck at Stanford University was a delight, an honor, and left me with a legal pad full of notes. As always, Stephen Page, Pam Sheley, Robert Sullivan, and Lori Thomas expertly edited the piece, and Pam Sheley contributed its design.

Sam Redding

Table of Contents

Personalized Learning.....	3
Teachers’ Relational Suasion and the Four Personal Competencies	7
Personal Competency Framework.....	8
Personal Competencies and Learning	10
Contexts for Enhancing Personal Competencies	11
School Community	12
School.....	13
Classroom.....	13
Templates for Enhancing Personal Competencies in the Design of the School’s Contexts.....	14
Explanation of Template Components	14
Context: School Community.....	15
Context: School	23
Context: Classroom	32
References.....	38
About the Author	39

Personalized Learning

Personalized learning is in fashion today with new technologies promising to make practical what educators have sought for a very long time—efficient and effective ways to manage curriculum, design and deliver instruction, and provide each student with a customized learning path directed, in part, by the student. The U.S. Department of Education (2010) defines personalized learning in this way:

Personalization refers to instruction that is paced to learning needs (i.e., individualized), tailored to learning preferences (i.e., differentiated), and tailored to the specific interests of different learners. In an environment that is fully personalized, the learning objectives and content as well as the method and pace may all vary. (p. 12)

By giving operational detail to the technology-enabled individualization of learning in this definition of personalization, we are able to rope in aspects of learning that are both personal and interpersonal. Redding (2013) articulates a definition of personalized learning sufficiently capacious to capture the significance of the teacher–learner relationship and provide some specificity as to the dynamics of personalization:

A broader, more fecund definition is that personalization refers to a teacher’s relationships with students and their families and the use of multiple instructional modes to scaffold each student’s learning and enhance the student’s motivation to learn and metacognitive, social, and emotional competencies to foster self-direction and achieve mastery of knowledge and skills. Or more simply, personalization ensues from the relationships among teachers and learners and the teacher’s orchestration of multiple means for enhancing every aspect of each student’s learning and development. (p. 6)

“Every aspect of each student’s learning and development” is a massive vessel and begs for parameters to make it a manageable construct. The parameters appear in the preceding

Personalized learning is a hot topic these days, raising both hopes and concerns: Is it a fad that will pass or an idea whose time has come? Does personalized learning disregard interpersonal learning? Will personalized learning give us the big jump in student achievement we desperately seek? Does personalized learning mean kids spending more time staring into electronic devices? What, exactly, is personalized learning? (Redding, 2013 p. 116)

Personal Competencies

- Cognitive competency—prior learning that **organizes** the mind and provides **associations** and understanding to facilitate new learning
- Metacognitive competency—**self-regulation** of learning and use of learning strategies
- Motivational competency—**engagement** and persistence in pursuit of learning goals
- Social/emotional competency—sense of **self-worth**, regard for others, and emotional understanding and management to set positive goals and make responsible decisions

sentence: motivation, metacognition, social/emotional competency, and mastery of knowledge and skills. A typical goal statement for education focuses on mastery of knowledge and skills. A constellation of related knowledge and skills serves to define an area of competency, for example competency in mathematics. *Personal* competencies, however, are primary drivers of all mastery, and they are:

- **Cognitive competency**—prior learning that organizes the mind and provides associations and understanding to facilitate new learning
- **Metacognitive competency**—self-regulation of learning and use of learning strategies
- **Motivational competency**—engagement and persistence in pursuit of learning goals
- **Social/emotional competency**—sense of self-worth, regard for others, and emotional understanding and management to set positive goals and make responsible decisions

Personal competencies are applied by students in learning (mastery of knowledge and skills). These competencies, then, are both acquired through learning and applied in the learning process.

Personalized learning—a promising approach to education made practical by advances in technology—only magnifies the importance of personal competencies. Underlying the optimism about personalized learning is the belief that a student’s desire to learn and effectiveness in learning are enhanced when the learning is personalized, meaning that the student is given greater choice in selecting topics, greater control over the learning environment and learning strategies, greater access to learning resources, and frequent feedback about learning progress. Placing the student in a more prominent role in her learning only magnifies the importance of personal competencies.

Wolf (2010) explains the importance of technology in taking personalized learning to scale:

Personalized learning requires not only a shift in the design of schooling, but also a leveraging of modern technologies. Personalization cannot take place at scale without technology. Personalized learning is enabled by smart e-learning systems, which help dynamically track and manage the learning needs of all students, and provide a platform to access myriad engaging learning content, resources, and learning opportunities needed to meet each student’s needs everywhere at any time, but which are not all available within the four walls of the traditional classroom. (p. 10)

“Personalized learning models,” writes Wolf (2010), “reverse the traditional model that views time and place (that is, seat-time) as the constant and achievement as the variable. Instead,

personalized learning ensures all students gain proficiency independent of time, place, and pace of learning” (p. 7). Technology can assist in all areas of teaching and learning (Dede & Richards, 2012; Wolf, 2010), including:

Student Data and Assessment

- assessing students initially to determine current strengths, weaknesses, and needs;
- managing student profile data to document individual needs, preferences, and interests;
- assessing student mastery to inform instruction;
- providing teachers, administrators, parents, and students with a wealth of data-based metrics and analytics reporting individual student learning as well as classroom, school, district, and state progress and performance;

Curriculum

- selecting, aligning, managing, and delivering curriculum;
- creating multiple, teacher-prepared lessons for targeting individual student needs, preferences, and interests;
- allowing the ongoing refinement of digital curricula based on multiple levels of outcomes;

Instruction and Learning

- delivering media-rich instruction from a wealth of varied resources;
- giving students access to resources and an interactive network of teachers and students;
- aiding students in project development and presentation;
- providing computer-based, computer-assisted, and online learning;
- using smart e-learning management systems that can dynamically track and manage the learning needs of individual students and whole classrooms;
- accessing intelligent, automated tutoring systems that provide immediate and customized coaching, feedback, and ongoing performance assessments to students;
- giving students access to real-time, up-to-date resources and learning opportunities that engage learners and meet individual learning needs anywhere and anytime; and
- connecting with learning communities that extend beyond the classroom.

Blended learning, a method of personalization, mixes traditional classroom instruction with online delivery of instruction and content, including learning activities outside the school, granting the student a degree of control over time, place, pace, and/or path (Bonk & Graham, 2006). In a blended learning approach, technology is not seen as a replacement for the traditional classroom, but rather as a powerful tool to enhance what is already proven to be effective pedagogy. “In this hybrid

Blended Learning

Blended learning, a method of personalization, mixes **traditional** classroom instruction with **online** delivery of instruction and content, including learning activities outside the school, granting the student a degree of **control** over time, place, pace, and/or path (Bonk & Graham, 2006).

Gaming

Schifter (2013) describes both the potential **benefits** and **dangers** of incorporating games into personalized learning strategies. “The first principle,” Schifter asserts, “is to connect the curriculum and the games to be used, or identify what goals/objectives/competencies are addressed through the educational software or game that cannot be achieved through other means” (p. 158).

conception of personalization, educators can carry out a series of practices to make sure that technology and data enhance relationships, but do not pretend to substitute for them” (Sandler, 2012, p. 1).

Educators look at the way online games capture the attention of young people and hold that attention for hours, requiring a considerable dose of the personal competencies. There must be something motivational about playing games, especially the visually rich and sophisticated games now available on the Internet. These Internet-based games also simultaneously engage players from across the globe, in both individual and team competition, showing the potential to open students’ connections with diverse people and places. Schifter (2013) describes both the potential benefits and dangers of incorporating games into personalized learning strategies. “The first principle,” Schifter asserts, “is to connect the curriculum and the games to be used, or identify what goals/objectives/competencies are addressed through the educational software or game that cannot be achieved through other means” (p. 158).

The Center for Mental Health in Schools at the University of California-Los Angeles (UCLA) studies personalized learning and creates professional development materials and protocols to assist schools and teachers in appropriately applying personalized learning methods. The Center’s continuing education curriculum, *Personalizing Learning and Addressing Barriers to Learning* (Center for Mental Health in Schools at UCLA, 2012), recounts the history of personalized learning and offers clarification for what the concept should include. The Center offers the following key points and caveats about the implementation of personalized learning methods in schools:

1. Personalized learning is too often equated with the introduction of technological innovations.
2. Discussions about personalized learning “fail to place personalized learning within the context of other conditions that must be improved in classrooms and school wide to address factors interfering with student learning and performance” (p. ii).
3. “Personalization strives to meet learners where they are—both in terms of current capabilities and motivation” (p. ii).
4. “While personalized learning provides a sound approach to teaching, classrooms also need to offer special assistance whenever students need something more, and schools need to develop a unified and comprehensive system to address common barriers to teaching and learning and to re-engage disconnected students” (p. ii).
5. “It is commonplace to see references to meeting learners where they are, analyses indicate the emphasis often is on

individualized approaches that stress matching individual differences in *developmental capabilities*. In contrast, we define *personalization* as the process of accounting for individual differences in both capability and *motivation*” (p. 7).

The Center for Mental Health in Schools at UCLA is wise in its caveats about personalized learning and correct in its assertion that personalized learning holds great promise. Including the enhancement of personal competencies in the purpose and methods of personalized learning will bolster its effectiveness and enable it to fulfill its promise. Although the Center specifically cites the importance of motivation, by inference it includes in its term “capabilities” the other personal competencies as well.

Teachers’ Relational Suasion and the Four Personal Competencies

A meta-analysis of factors that influence student learning (Wang, Haertel, & Walberg, 1993, 1997) includes elements that are described as student attributes (cognitive, metacognitive, motivational/affective, and social-behavioral), which correspond with what we are calling personal competencies, and others (e.g., classroom management, quality of instruction) that are more directly controlled by the school and teacher. Even the student attributes, however, are largely influenced by the school and teacher. Especially, a student’s cognitive competency rests upon the foundation of prior learning provided by the school.

Relational suasion is the teacher’s ability to influence a student’s learning, motivation to learn, metacognitive competencies, and social/emotional competencies by virtue of the teacher’s personal knowledge of and interaction with the student and the student’s family (Redding, 2013). In fact, relational suasion may be more broadly defined as the ability of one person to positively influence another because of an underlying foundation of respect and trust inherent to their relationship. Students develop personal competencies in part through instruction. They also acquire personal competencies through the modeling, encouragement, and caring exhibited by teachers and other people they respect. Relational suasion, then, is a function of the role, the relationship, and the behaviors of the teacher or other people with whom the student interacts.

A foundation for an understanding of the teacher–student relationship is found in the work of Albert Bandura (1986), who broke new ground in behavioral theory by demonstrating that a person learns not only by direct reinforcement of her behavior but also indirectly through observation of other people. This vicarious or observational learning requires a model—the other person. In school, the teacher is a prominent model, and

Relational Suasion

The teacher’s ability to **influence** a student’s learning, motivation to learn, metacognitive competencies, and social/emotional competencies by virtue of the teacher’s **personal** knowledge of and **interaction** with the student and the student’s family (Redding, 2013).

Questions for Reflection

1. How are the pace and place of learning varied for students as strategies in personalized learning?
2. How do teachers use technology to provide differentiated learning paths for students?
3. How is a teachers' relational suasion with students demonstrated?
4. Does the inclusion of personal competencies in a broader definition of personalized learning strengthen the potential of what personalized learning can accomplish?

the student's respect for and trust in the teacher contribute to the teacher's relational suasion and the power of the teacher's modeling. Bandura's social cognitive theory offered a nuanced version of behaviorism that incorporated research on cognition, recognizing that the learner is an actor in his environment, shapes the environment, and learns through observation and modeling as well as direct response to stimuli. To Bandura, the personality emerges from an interaction of the person's behavior, the environment, and the person's cognitive processes. The student is deeply engaged with his learning environment, and his interactions with his teachers are critical to the evolution of his personal competencies.

Personal Competency Framework

In asserting a higher profile for personal competencies in our goals for education, a personal competency framework is in order, and defining its key components is necessary, especially given their interrelationship to one another. In our Personal Competency Framework (from Redding, 2014), we use terms that may have different meanings in different contexts, so it is good to define them here.

- *Mastery* is a marker, the demonstration of specific knowledge and/or skill according to objective criteria.
- *Competence* is the possession of a sufficient degree of knowledge and skill to perform a functional role. I am a competent reader, a competent typist, a competent mechanic, a competent teacher, or a competent father.
- *Competency*, on the other hand, is not a marker, end state, or a level of capability, but a general and evolving accumulation of related capabilities that facilitate learning and other forms of goal attainment.

A student may *master* the knowledge and skill required to add two numbers, thus meeting objectives for this function. That is one tiny incremental step toward *competence* in mathematics. The student employs the four *personal competencies* in achieving mastery. In fact, mastery of addition incrementally reinforces all the competencies for learning (cognitive, metacognitive, motivational, and social/emotional) and strengthens the patterns of behavior through which the competencies combine to reach a new learning goal, such as mastery of multiplication.

The elements of a Personal Competency Framework, as proposed here, are:

1. Personal Competencies:

Cognitive Competency—prior learning that organizes the mind and provides associations and understanding to facilitate new learning

Metacognitive Competency—self-regulation of learning and use of learning strategies

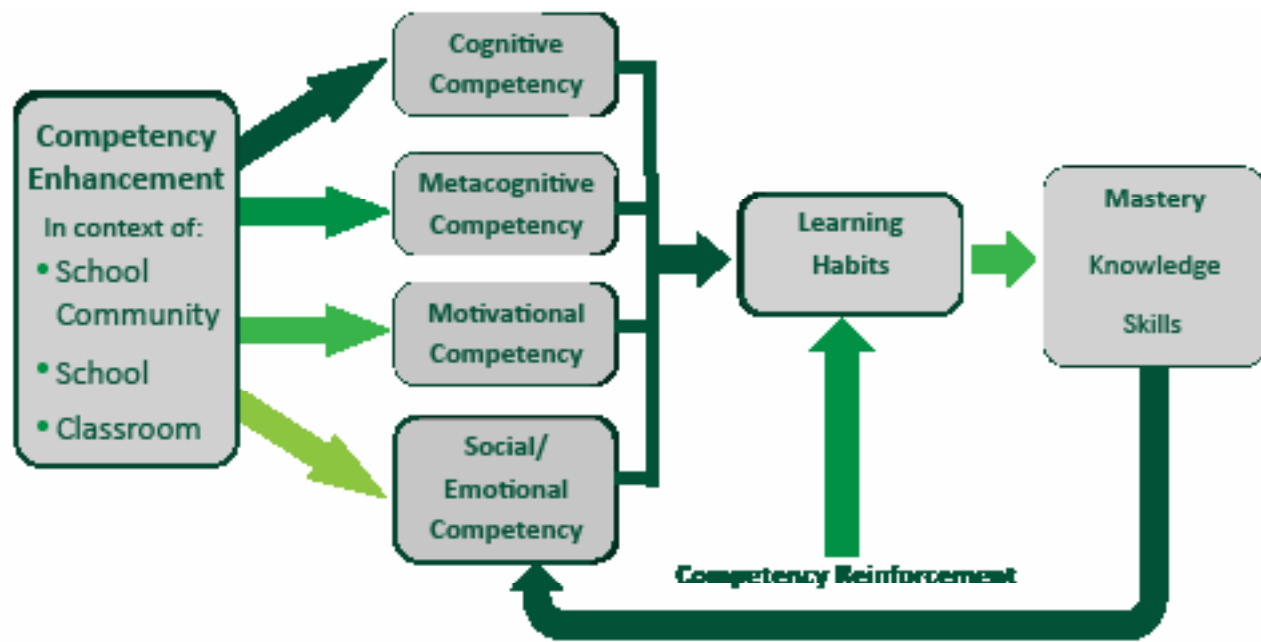
Motivational Competency—engagement and persistence in pursuit of learning goals

Social/Emotional Competency—sense of self-worth, regard for others, and emotional understanding and management to set positive goals and make responsible decisions

2. **Learning Habits:** the conversion of individual competencies into coordinated patterns of behavior activated when confronting new learning tasks
3. **Mastery:** meeting criteria for specific objectives related to knowledge and skills
4. **Competency Enhancement:** the intentional development of students' personal competencies within the contexts of the school community, school, and classroom
5. **Competency Reinforcement:** the strengthening and modification of personal competencies and patterns of behavior that result from both the process of pursuing mastery and mastery itself
6. **Contexts:** the environments within which personal competencies are intentionally developed: school community (families, students, school personnel), school (curriculum, programs, and school culture), and classroom (instruction and classroom culture)

Figure 1 illustrates the relationships among the components of the Personal Competency Framework.

Figure 1. A Personal Competency Framework



Personal Competencies and Learning

Educational Productivity

Walberg's theory of educational productivity and academic achievement (Reynolds & Walberg, 1992; Walberg, 1981) posits that psychological **characteristics** of individual students and their immediate psychological environments most directly **influence** educational outcomes.

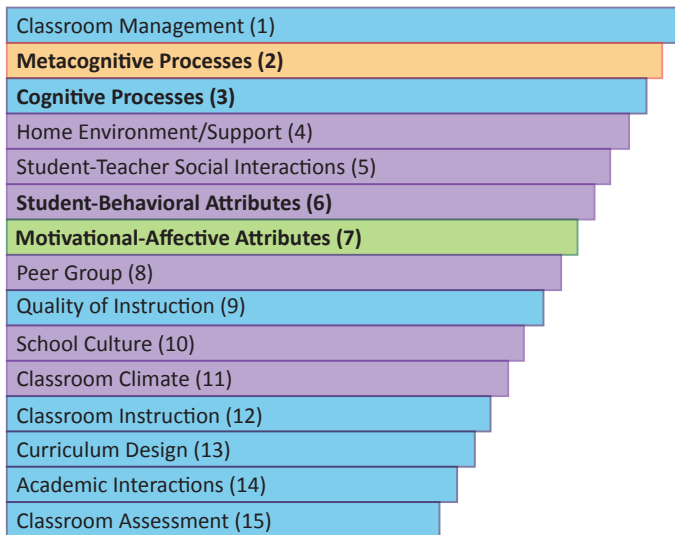
The Personal Competency Framework illustrates the significance of the four personal competencies and the patterns of behavior that emerge from them in student learning. Walberg's theory of educational productivity and academic achievement (Reynolds & Walberg, 1992; Walberg, 1981) posits that psychological characteristics of individual students and their immediate psychological environments most directly influence educational outcomes. A model based on the Walberg theory and substantiating research includes nine key psychological factors that influence educational outcomes: student ability/prior achievement, motivation, age/developmental level, quantity of instruction, quality of instruction, classroom climate, home environment, peer group, and exposure to mass media outside of school (Subotnik & Walberg, 2006; Walberg, Fraser, & Welch, 1986). Statistically, it could be said that the nine factors tend to be correlated not only with outcomes and gains in outcomes but also with one another. Motivation raises achievement, for example, but also vice versa. Parents contribute to ability, but able children may stimulate their parents to stimulate them.

In a classic meta-analysis of 28 categories of influence on student learning (Wang et al., 1993, 1997), the relative effects of the four personal competencies can be illustrated. The 15 most influential categories are shown in Figure 2, with the number in parentheses noting their rank in effect size, that is, their rank in their effect on learning; the bolded categories of influence on learning are student attributes, and the other categories are environmental factors.

The top 15 influences on learning are interrelated, in that each affects learning outcomes while also affecting the other influences. It is worth noting here that student attributes are themselves subject to the influences of other categories in this analysis. For example, cognitive processes are in large part the result of the student's prior learning, as provided by teachers. Likewise, metacognitive processes are bolstered through teachers' instruction and modeling of self-regulatory methods and learning strategies. Social and behavioral attributes are shaped by the teacher's intentional instruction in social and emotional learning and the teacher's classroom management methods. The teacher contributes strongly to the student's motivation to learn. All of which is to say, the teacher plays a central role in all the most powerful categories of influence on student learning, including those described as student attributes.

Figure 2: Personal Competencies and Factors Influencing Student Learning

(Bar colors represent competencies: Blue=Cognitive; Orange=Metacognitive; Green=Motivational; Purple=Social/Emotional. Bolded categories of influence on learning are student attributes; other categories are environmental factors. The number in parentheses denotes rank order in effect on learning.)



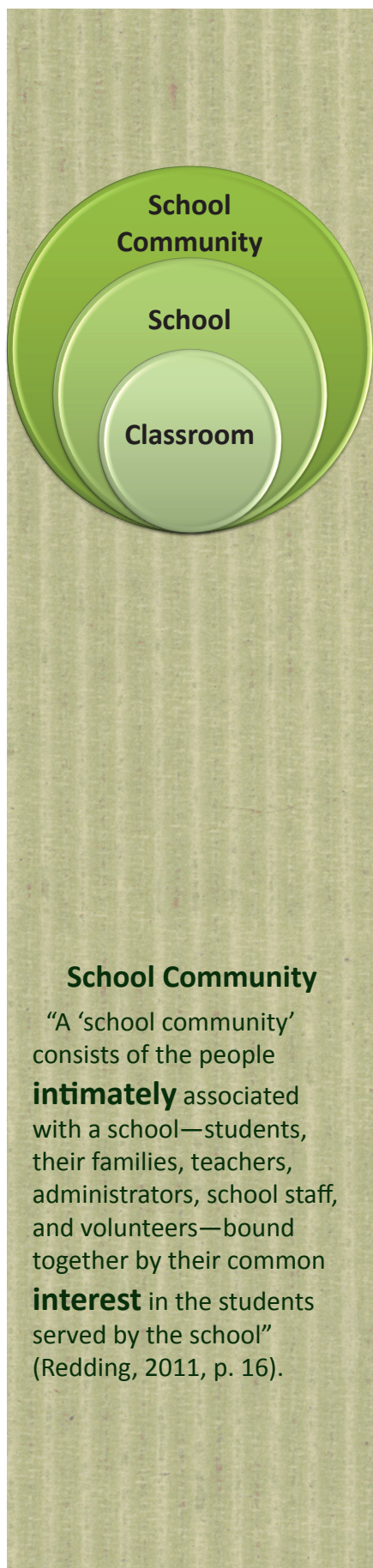
This is not to say that the student does not bring his own psychological idiosyncrasies to school, or that the family, community, and peer group don't have significant influence on the student's school learning. In fact, the home environment and peer group are among the 15 strongest influences on student learning, and they also impact various other categories. Again, the factors closest to the student (proximal variables), including the student's own attributes, most strongly influence learning, and these factors are interrelated, impacting each other as well as learning.

Contexts for Enhancing Personal Competencies

Students' personal competencies evolve over time through learning both in and outside of school, often incidentally and not through intentional programs aimed at their enhancement. A student discovers by trial and error (and by observing others) certain learning strategies that prove effective, behaviors that ease social situations, and activities that arouse their interest. The student accumulates a bank of knowledge that she draws upon in making connections with new information that presents itself each and every day. No student is without some degree of personal competency for learning, even if the school does not consider the strengthening of personal competencies as an

Questions for Reflection

1. How is the idea of personal competencies useful in understanding what influences student learning?
2. How are the student's personal competencies impacted by the teacher?
3. How are the student's personal competencies impacted by the broader school community, including the home?



explicit goal in its mission. How might all students benefit from a school experience that intentionally addresses personal competencies? What would this look like in the school? Personal competencies may be intentionally strengthened within three contexts: school community, school, and classroom. The school community is the larger context, enveloping students and school personnel as well as students’ families, volunteers, and others with an intimate association with the school. The context of the school itself includes the internal culture of the school, school-wide and extra-curricular programs, and the overarching curriculum. The classroom context is the domain of the teacher, students, and other classroom personnel engaged in teaching and learning (instruction) and reflected in the classroom culture and the teacher’s classroom management.

School Community

“A ‘school community’ consists of the people intimately associated with a school—students, their families, teachers, administrators, school staff, and volunteers—bound together by their common interest in the students served by the school” (Redding, 2011, p. 16). Association and common interest alone don’t define a strong school community; common values for the goals of education and acceptance of roles in achieving these goals are also necessary. The goals of a school community find particular salience when focused on areas of overlapping responsibility between the school and the home, including attitudes and habits relative to school success. The School Community Network (SCN) (see www.schoolcommunitynetwork.org), for example, seeks to achieve a strong school community through mutually supportive roles in enhancing children’s (1) literacy, (2) self-directed learning (study skills and habits), (3) respect for self and others, and (4) responsibility to self and others. SCN views these four student attributes as foundational to learning and success in life.

The six building blocks of a strong school community (Redding, 2011) are:

1. **Leadership** that is *shared* among its members.
2. **Goals and Roles** that guide its members in doing their part relative to student learning and in their relationships to one another.
3. **Communication** among its members that is two-way and interactive and clarifies their roles and responsibilities.
4. **Education** of its members that builds their capacity to fulfill their roles and responsibilities.
5. **Connections** among its members that enhance their personal relationships, strengthen their bonds to one another and to the school, and foster mutual pursuit of success for all students.

6. **Continuous Improvement** because a school community is never completely “built.” It is always building its capacity for nurturing the ties among its members and achieving outcomes for its students.

In considering how personal competencies are enhanced within the context of the school community, the roles of parents and volunteers, as well as the school staff and students, are taken into account.

School

Personal competencies may be enhanced directly through the school’s formal programs and curriculum, but they are also built more indirectly through the prevailing school culture. School culture resides in the school’s collective values, beliefs, and norms, and evidenced in its mission statement, rituals, routines, and relationships among its personnel and students. School climate, as opposed to school culture, is reflected in the general morale or mood of the people in the school.

Personal competencies may be codified into standards and objectives and integrated within the school’s curriculum. The content of the curriculum is constructed in accordance with the standards and objectives, relative to each subject and grade level. Including personal competencies in the curriculum enables teachers to intentionally address them in instruction.

Classroom

Personal competencies are enhanced through the teacher’s instruction (especially when personalized) and the classroom culture. The teacher’s relational suasion with students facilitates their learning and their building of personal competencies. Like the school culture, the culture of a teacher’s classroom reflects values and is seen in its rituals, routines, expected behaviors, and relationships among teachers and students. How the teacher organizes the classroom and establishes and reinforces its rules and procedures constitute classroom management, and classroom management operationalizes much of what is more broadly called classroom culture.

Through personalized instruction, the teacher is attune to each student’s evolving personal competencies and differentiates learning assignments accordingly. The teacher is aware that in tackling each learning task, a student exercises the four personal competencies, and assists and reinforces the student in doing so. In granting greater control to the student in making choices about topics, regulating the learning process, and accessing resources through a variety of modes (including the Internet), the teacher is fully aware of the competencies that learner independence requires.

Questions for Reflection

1. In what ways is the home a primary environment for building children’s personal competencies, and how can the school intentionally engage families in this effort?
2. Where do personal competencies appear in the school’s curriculum, and how can their presence be more intentional?
3. What is the school culture and how does it bear on personal competencies?
4. What does it mean that personal competencies are enhanced through instruction, expectation, and example?

Templates for Enhancing Personal Competencies in the Design of the School's Contexts

Tables 1-12 show an example of a design for intentionally enhancing personal competencies in the three contexts described above. These tables are meant only to provide examples. The design for an actual school would reflect the mission, configuration, and nature of the school. Filling out the templates, even with just a few possible strategies for each personal competency within each context, is a good way to familiarize people with the concepts and begin intentionally enhancing personal competencies. A School Community Council or similar group that includes the principal, teachers, and parents might work on the school community template. The school template would be a good exercise for the entire faculty, and the classroom template might be completed by individual teachers or groups of teachers working together.

Explanation of Template Components

Theory of action: A common form for a theory of action is “When we do this, this will result.” The result is the enhancement of the personal competency within the specific context.

Logic model: A logic model is a stepwise presentation of the theory of action. For our purposes, the logic model includes Indicators (that the goal is being met), Strategies (to implement the Indicator), and Resources (including technology, to execute the strategy). The Indicators are used to assess current status and are phrased in future tense to form Objectives; evidence is a data source that would confirm that the Objective is being met. A Strategy is a practice of the school, team, or teacher aimed at meeting the Objective and enhancing a personal competency. Resources include the materials and technological aids that would be employed in executing the strategy.

Context: School Community

Table 1: Cognitive Competency in the School Community

Theory of Action	When the entire school community works together to enhance students' cognitive competency, every student's reservoir of knowledge is expanded and their new learning is facilitated.	
Goal	All members of the school community (families, students, administrators, teachers, other school personnel, and volunteers) will understand and support the importance of building each student's reservoir of knowledge through a standards-aligned curriculum, rich reading, writing, memorization, and vocabulary development.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: The School Community Council ensures that all parents understand the purpose of a standards-aligned curriculum, their own children's progress, and their role in supporting learning at home.</p> <p>Objective: The School Community Council will ensure that all parents understand the purpose of a standards-aligned curriculum, their own children's progress, and their role in supporting learning at home.</p> <p>Evidence: Documentation of initiatives. Surveys administered to parents confirm their understanding of cognitive competency, their own children's progress, and their role in supporting learning at home. Pre- and post-questionnaires from professional development workshops.</p>	<p>Communication: Provide information for parents on the school community's goal for building cognitive competency, the purpose of a standards-aligned curriculum, and how parents support learning at home. Include parent-provided examples.</p>	<p>Resources: Newsletter, community "town hall" discussion</p> <p>Technology-aided Resources: School website section for parents; parent feedback via website; ongoing social media campaign; streaming and archived video of "town hall" meetings; online library of digital videos of student, parents, graduates, and educators on the importance of cognitive competency</p>
	<p>Education: Provide workshops for parents on the purpose of a standards-aligned curriculum and home strategies to encourage rich reading, writing, memorization, and vocabulary development.</p>	<p>Resources: Curricula and protocol for workshops and workshop leaders for face-to-face and for synchronous and asynchronous online delivery</p> <p>Technology-aided Resources: Webinars; interactive learning modules; e-workbooks; in-situ and post workshop online surveys of relevance, utility, and application; "recommended" lists of cognitive enrichment software and apps for use at home</p>
	<p>Connection: Include a discussion of cognitive competency and the parents' role in supporting their children's cognitive development at home at the open house and in parent-teacher-student conferences.</p>	<p>Resources: Agendas for open houses and parent-teacher-student conferences; guiding questions</p> <p>Technology-aided Resources: Online resource library of related digital articles, and video samples of parent/child interactions and parent/educator discussions for modeling and review</p>

Table 1: Cognitive Competency in the School Community

<p>Indicator: The School Community Council ensures that all school personnel and volunteers understand cognitive competency and their roles relative to its enhancement in students.</p> <p>Objective: The School Community Council will ensure that all school personnel and volunteers understand cognitive competency and their roles relative to its enhancement in students.</p> <p>Evidence: Copies of job descriptions and descriptions of role of volunteers. Surveys of personnel and volunteers. Pre- and post-questionnaires from professional development.</p>	<p>Goals and Roles: Include in job descriptions and description of role of volunteers ways to enhance students' cognitive competency.</p>	<p>Resources: Job descriptions and description of role of volunteers, job aides to support practices in action</p> <p>Technology-aided Resources: Online resource library of related articles and digital video samples of volunteers enhancing cognitive competency; "recommended" lists of cognitive enrichment software and apps for use within the school day</p>
	<p>Education: Provide professional development for all school personnel and volunteers on cognitive competency.</p>	<p>Resources: Curricula and protocol for professional development leaders for face-to-face and for synchronous and asynchronous online delivery</p> <p>Technology-aided Resources: Webinars; interactive learning modules; e-workbooks; in-situ and post workshop online surveys of relevance, utility, and application; "recommended" lists of cognitive enrichment and other related software and tools</p>

Table 2. Metacognitive Competency in the School Community

Table 2. Metacognitive Competency in the School Community		
Theory of Action	When the entire school community works together to enhance students' metacognitive competency, every student will more effectively manage and broaden his or her own learning.	
Goal	All members of the school community (families, students, administrators, teachers, other school personnel, and volunteers) will understand and support the importance of metacognitive competency, including the planning and use of learning strategies, logical and divergent thinking, self-appraisal of mastery, and adjustment of strategies to achieve mastery.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: The School Community Council ensures that all parents understand metacognitive competency, learning strategies, and ways they can support their children's self-management of learning at home.</p> <p>Objective: The School Community Council will ensure that all parents understand metacognitive competency, learning strategies, and ways they can support their children's self-management of learning at home.</p> <p>Evidence: Documentation of initiatives. Surveys administered to parents confirm their understanding of metacognitive competency, learning strategies, and ways they can support their children's self-management of learning at home. Pre- and post-questionnaires from professional development workshops.</p>	<p>Communication: Provide information for parents on the school community's goal for building metacognitive competency and how parents can support their children's self-management of learning at home. Include parent-provided examples.</p>	<p>Resources: Newsletter; community "town hall" discussion</p> <p>Technology-aided Resources: School website section for parents; parent feedback via website; ongoing social media campaign; streaming and archived video of "town hall" meetings; online library of digital videos of student, parents, graduates, and educators on the importance of metacognitive competency</p>
	<p>Education: Provide workshops for parents on metacognitive competency, learning strategies, and how they can support their children's self-management of learning at home.</p>	<p>Resources: Curricula and protocol for workshops and workshop leaders for face-to-face and for synchronous and asynchronous online delivery</p> <p>Technology-aided Resources: Webinars; interactive learning modules; e-workbooks; in-situ and post workshop online surveys of relevance, utility, and application; "recommended" lists of time-management and task organization software and apps for use at home</p>
	<p>Connection: Include a discussion of metacognitive competency and the parents' role in supporting their children's metacognitive development at home at the open house and in parent-teacher-student conferences.</p>	<p>Resources: Agendas for open houses and parent-teacher-student conferences; guiding questions</p> <p>Technology-aided Resources: Online resource library of digital articles, and video samples of parent/child interactions and parent/educator discussions for modeling and review</p>

Table 2. Metacognitive Competency in the School Community

<p>Indicator: The School Community Council ensures that all school personnel and volunteers understand metacognitive competency and their roles relative to its enhancement in students.</p> <p>Objective: The School Community Council will ensure that all school personnel and volunteers understand metacognitive competency and their roles relative to its enhancement in students.</p> <p>Evidence: Copies of job descriptions and descriptions of role of volunteers. Surveys of personnel and volunteers. Pre- and post-questionnaires from professional development.</p>	<p>Goals and Roles: Include in job descriptions and description of role of volunteers ways to enhance students’ metacognitive competency.</p>	<p>Resources: Job descriptions and description of role of volunteers, job aides to support practices in action</p> <p>Technology-aided Resources: online resource library of related articles and digital video samples of volunteers enhancing metacognitive competency; “recommended” lists of time-management and task organization software and apps for use within the school day</p>
	<p>Education: Provide professional development for all school personnel and volunteers on metacognitive competency.</p>	<p>Resources: Curricula and protocol for professional development leaders for face-to-face and for synchronous and asynchronous online delivery</p> <p>Technology-aided Resources: Webinars; interactive learning modules; e-workbooks; in-situ and post workshop online surveys of relevance, utility, and application; “recommended” lists of time-management, task organization, and other related software and tools</p>

Table 3. Motivational Competency in the School Community

Table 3. Motivational Competency in the School Community		
Theory of Action	When the entire school community works together to enhance students' motivational competency, every student will more persistently engage with learning.	
Goal	All members of the school community (families, students, administrators, teachers, other school personnel, and volunteers) will understand and support the importance of motivational competency, including a growth mindset, value of mastery, and connecting learning tasks with students' personal aspirations.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: The School Community Council ensures that all parents understand motivational competency (a growth mindset, the value of mastery, and connecting learning tasks with students' personal aspirations) and how they can enhance motivational competency at home.</p> <p>Objective: The School Community Council will ensure that all parents will understand motivational competency (a growth mindset, the value of mastery, and connecting learning tasks with students' personal aspirations) and how they can enhance motivational competency at home.</p> <p>Evidence: Documentation of initiatives. Surveys administered to parents confirm their understanding of motivational competency and how they can enhance motivational competency at home. Pre- and post-questionnaires from professional development workshops.</p>	<p>Communication: Provide information for parents on the school community's goal for building motivational competency and how parents can support their children's growth mindset, value of mastery, and connection of learning tasks with personal aspirations.</p>	<p>Resources: Newsletter; community "town hall" discussion</p> <p>Technology-aided Resources: School website section for parents; parent feedback via website; ongoing social media campaign; streaming and archived video of "town hall" meetings; online library of digital videos of student, parents, graduates, and educators on the importance of personalization and motivational competency</p>
	<p>Education: Provide workshops for parents on motivational competency (a growth mindset, the value of mastery, and connecting learning tasks with students' personal aspirations) and how they can enhance motivational competency at home.</p>	<p>Resources: Curricula and protocol for workshops and workshop leaders for face-to-face and for synchronous and asynchronous online delivery</p> <p>Technology-aided Resources: Webinars; interactive learning modules; e-workbooks; in-situ and post workshop online surveys of relevance, utility, and application; "recommended" lists of software, apps, and procedures designed to help increase motivation, for use at home</p>
	<p>Connection: Include a discussion of motivational competency and the parents' role in enhancing their children's motivational competency at home at the open house and in parent-teacher-student conferences.</p>	<p>Resources: Agendas for open houses and parent-teacher-student conferences; guiding questions</p> <p>Technology-aided Resources: Online resource library of digital articles, and video samples of parent/child interactions and parent/educator discussions for modeling and review</p>

Table 3. Motivational Competency in the School Community

<p>Indicator: The School Community Council ensures that all school personnel and volunteers understand motivational competency and their roles relative to its enhancement in students.</p> <p>Objective: The School Community Council will ensure that all school personnel and volunteers understand motivational competency and their roles relative to its enhancement in students.</p> <p>Evidence: Copies of job descriptions and descriptions of role of volunteers. Surveys of personnel and volunteers. Pre- and post-questionnaires from professional development.</p>	<p>Goals and Roles: Include in job descriptions and description of role of volunteers ways to enhance students’ motivational competency.</p>	<p>Resources: Job descriptions and description of role of volunteers, job aides to support practices in action</p> <p>Technology-aided Resources: Online resource library of related articles and digital video samples of volunteers enhancing motivational competency; “recommended” lists of software, apps, and procedures designed to help increase motivation, for use within the school day</p>
	<p>Education: Provide professional development for all school personnel and volunteers on motivational competency.</p>	<p>Resources: Curricula and protocol for professional development leaders for face-to-face and for synchronous and asynchronous online delivery</p> <p>Technology-aided Resources: Webinars; interactive learning modules; e-workbooks; in-situ and post workshop online surveys of relevance, utility, and application; “recommended” lists of software, apps, and procedures designed to help increase motivation and personalize learning</p>

Table 4. Social/Emotional Competency in the School Community

Table 4. Social/Emotional Competency in the School Community		
Theory of Action	When the entire school community works together to enhance students' social/emotional competency, every student will grow in (1) understanding and managing emotions, (2) setting and achieving positive goals, (3) feeling and showing empathy for others, (4) establishing and maintaining positive relationships, and (5) making responsible decisions	
Goal	All members of the school community (families, students, administrators, teachers, other school personnel, and volunteers) will understand and support the importance of social/emotional competency, including (1) understanding and managing emotions, (2) setting and achieving positive goals, (3) feeling and showing empathy for others, (4) establishing and maintaining positive relationships, and (5) making responsible decisions.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: The School Community Council ensures that all parents understand social/emotional competency and their role in enhancing their children's growth in (1) understanding and managing emotions, (2) setting and achieving positive goals, (3) feeling and showing empathy for others, (4) establishing and maintaining positive relationships, and (5) making responsible decisions.</p> <p>Objective: The School Community Council ensures that all parents will understand social/emotional competency and their role in enhancing their children's growth in (1) understanding and managing emotions, (2) setting and achieving positive goals, (3) feeling and showing empathy for others, (4) establishing and maintaining positive relationships, and (5) making responsible decisions.</p> <p>Evidence: Documentation of initiatives. Surveys administered to parents confirm their understanding of social/emotional competency and how they can enhance social/emotional competency at home. Pre- and post-questionnaires from professional development workshops.</p>	<p>Communication: Provide information for parents on the school community's goal for building social/emotional competency and how parents can support their children's growth in (1) understanding and managing emotions, (2) setting and achieving positive goals, (3) feeling and showing empathy for others, (4) establishing and maintaining positive relationships, and (5) making responsible decisions.</p>	<p>Resources: Newsletter; community "town hall" discussion</p> <p>Technology-aided Resources: School website section for parents; parent feedback via website; ongoing social media campaign; streaming and archived video of "town hall" meetings; online library of digital videos of student, parents, graduates, and educators on the importance of social/emotional competency</p>
	<p>Education: Provide workshops for parents on social/emotional competency and their role in enhancing their children's growth in (1) understanding and managing emotions, (2) setting and achieving positive goals, (3) feeling and showing empathy for others, (4) establishing and maintaining positive relationships, and (5) making responsible decisions.</p>	<p>Resources: Curricula and protocol for workshops and workshop leaders for face-to-face and for synchronous and asynchronous online delivery</p> <p>Technology-aided Resources: Webinars; interactive learning modules; e-workbooks; in-situ and post workshop online surveys of relevance, utility, and application; "recommended" lists of software, apps, and procedures designed to help increase social/emotional competency, for use at home</p>
	<p>Connection: Include a discussion of social/emotional competency and the parents' role in enhancing their children's social/emotional competency at home at the open house and in parent-teacher-student conferences.</p>	<p>Resources: Agendas for open houses and parent-teacher-student conferences; guiding questions</p> <p>Technology-aided Resources: Online resource library of digital articles, and video samples of parent/child interactions and parent/educator discussions for modeling and review</p>

Table 4. Social/Emotional Competency in the School Community

<p>Indicator: The School Community Council ensures that all school personnel and volunteers understand social/emotional competency and their roles relative to its enhancement in students.</p> <p>Objective: The School Community Council will ensure that all school personnel and volunteers understand social/emotional competency and their roles relative to its enhancement in students.</p> <p>Evidence: Copies of job descriptions and descriptions of role of volunteers. Surveys of personnel and volunteers. Pre- and post-questionnaires from professional development.</p>	<p>Goals and Roles: Include in job descriptions and description of role of volunteers ways to enhance students’ social/emotional competency.</p>	<p>Resources: Job descriptions and description of role of volunteers, job aides to support practices in action</p> <p>Technology-aided Resources: Online resource library of related articles and digital video samples of volunteers enhancing social/emotional competency; “recommended” lists of software, apps, and procedures designed to help increase social/emotional competency, for use within the school day</p>
	<p>Education: Provide professional development for all school personnel and volunteers on social/emotional competency.</p>	<p>Resources: Curricula and protocol for professional development leaders for face-to-face and for synchronous and asynchronous online delivery</p> <p>Technology-aided Resources: Webinars; interactive learning modules; e-workbooks; in-situ and post workshop online surveys of relevance, utility, and application; “recommended” lists of software, apps, and procedures designed to help increase social/emotional competency</p>

Context: School

Table 5. Cognitive Competency in the School			
Theory of Action	When the school embeds cognitive competency in its curriculum, co-curricular programs, and school culture, students' cognitive competency is enhanced and every student's reservoir of knowledge is expanded and their new learning is facilitated.		
Goal	The cognitive competency of all students will be enhanced through the school's curriculum, co-curricular programs, and culture.		
Logic Model			
Indicator/Objective/Evidence	Strategy	Resources, Technology	
<p>Indicator: All teachers and teacher teams plan instruction based on the aligned and expanded curriculum that includes rich reading, writing, memorization, and vocabulary development.</p> <p>Objective: All teachers and teacher teams will plan instruction based on the aligned and expanded curriculum that includes rich reading, writing, memorization, and vocabulary development.</p> <p>Evidence: Copies of the aligned curriculum and lesson plans including rich reading, writing, memorization, and vocabulary development. Copies of team and teacher planning templates.</p>	Curriculum: Thoroughly align the school's curriculum, vertically and horizontally, to ensure that all students develop the background knowledge to progress with new learning.	<p>Resources: Clear and readily accessible documents aligning standards, curriculum, and instruction; resources, including links to websites that support alignment and provide lesson plans and materials. Post aligned curriculum on school website.</p> <p>Technology-aided Resources: School website section for school personnel showing alignment, with the ability for comment and feedback</p>	
	Curriculum: Identify elements of the aligned curriculum that encourage rich reading, writing, memorization, and vocabulary development, and add to the curriculum where these elements are not apparent.	Resources: Documents that show the elements of the curriculum that specifically address rich reading, writing, memorization, and vocabulary development. Post the documents on the school website.	Technology-aided Resources: "Recommended" lists of vetted software, apps, and other curricula designed to improve instruction and outcomes in rich reading, writing, memorization, and vocabulary development
	Evidence-Based Programs: Determine areas of need for cognitive competency; select evidence based programs that address the needs; implement programs with fidelity; evaluate their results.	Resources: Needs assessment; descriptions of available programs, their purposes and results; implementation plans; evaluation procedures. Use automated measurement systems when possible. Post descriptions of selected programs, as well as opportunities for professional development on the school website	

Table 5. Cognitive Competency in the School

<p>Indicator: All staff conducting co-curricular programs fulfill the purposes of the programs including appropriate elements of the aligned curriculum and other cognitive competency activities.</p> <p>Objective: All staff conducting co-curricular programs will fulfill the purposes of the programs including appropriate elements of the aligned curriculum and other cognitive competency activities.</p> <p>Evidence: Copies of co-curricular program descriptions and activities.</p>	<p>Co-curricular Programs: Include in the purpose of each co-curricular program elements of the aligned curriculum and activities such as rich reading, writing, memorization, and vocabulary development that can be appropriately enhanced by that program.</p>	<p>Resources: Clear and readily accessible documents that describe the purpose of each co-curricular program and the elements of the aligned curriculum and activities such as rich reading, writing, memorization, and vocabulary development that are appropriately enhanced by that program. Post the documents on the school website.</p> <p>Technology-aided Resources: School website section for school personnel showing alignment, with the ability for comment and feedback</p>
<p>Indicator: The school’s key documents explain the value of cognitive competency and how it is enhanced through specific roles and relationships.</p> <p>Objective: The school’s key documents will explain the value of cognitive competency and how it is enhanced through specific roles and relationships.</p> <p>Evidence: Copies of the school’s mission statement, compact with parents, staff employment manuals, and student handbook.</p>	<p>School Culture: Include in the school’s mission statement, compact with parents, staff employment manuals, and student handbook a recognition of the value of cognitive competency.</p>	<p>Resources: Documents including the school’s mission statement, compact with parents, staff employment manuals, and student handbook that include a recognition of the value of cognitive competency. Post the documents and brief video interviews/cameos of educators and students talking about these values on the school website. Clear and readily accessible documents including the school’s mission statement, compact with parents, staff employment manuals, and student handbook that include a recognition of the value of cognitive competency. Post the documents on the school website.</p> <p>Technology-aided Resources: Create and post brief video interviews/cameos of educators and students talking about these values; post links to articles, blogs, or videos of renowned educators or thought leaders stressing the importance of cognitive competency</p>

Table 5. Cognitive Competency in the School

<p>Indicator: The school promotes cognitive competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p> <p>Objective: The school will promote cognitive competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p> <p>Evidence: Documentation of the promotion of cognitive competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p>	<p>School Culture: Promote cognitive competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p>	<p>Resources: Clear and readily accessible document explaining the school culture, how it promotes cognitive competency, and procedures and schedules for the same.</p> <p>Technology-aided Resources: Social networks and in-school chat groups to recognize and celebrate cognitive competencies; consider the use of digital academic “badges” and digital portfolios of student accomplishments; build a nomination and award system into the school website</p>
---	--	--

Table 6. Metacognitive Competency in the School		
Theory of Action	When the school embeds metacognitive competency in its curriculum, co-curricular programs, and school culture, students will more effectively manage their own learning.	
Goal	The metacognitive competency of all students will be enhanced through the school's curriculum, co-curricular programs, and culture.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: All teachers and teacher teams plan instruction based on the aligned and expanded curriculum that includes objectives for student management of their learning.</p> <p>Objective: All teachers and teacher teams will plan instruction based on the aligned and expanded curriculum that includes objectives for student management of their learning.</p> <p>Evidence: Copies of the aligned curriculum and lesson plans including objectives for student management of learning. Copies of team and teacher planning templates.</p>	Curriculum: Include objectives for student management of learning in the aligned and expanded curriculum and in instructional plans.	<p>Resources: Clear and readily accessible documents aligning standards, curriculum, and instruction that include student management of learning; resources, including links to websites that support student management of learning and provide lesson plans and materials. Post aligned curriculum on school website.</p> <p>Technology-aided Resources: School website section for school personnel showing alignment, with the ability for comment and feedback</p>
	Curriculum: Identify elements of the aligned curriculum that encourage student management of learning and add to the curriculum where these elements are not apparent.	Resources: Clear and readily accessible documents that show the elements of the curriculum that specifically address student management of learning. Post the documents on the school website.
<p>Indicator: All staff conducting co-curricular programs fulfill the purposes of the programs including appropriate elements of student management of learning.</p> <p>Objective: All staff conducting co-curricular programs will fulfill the purposes of the programs including appropriate elements of student management of learning.</p> <p>Evidence: Copies of co-curricular program descriptions and activities.</p>	Co-curricular Programs: Include in the purpose of each co-curricular program elements of student management of learning.	<p>Resources: Clear and readily accessible documents that describe the purpose of each co-curricular program and the elements that encourage student management of learning, post the documents on the school website; create "stretch" goals that require creative thinking, problem-solving, content creation, post products on class, school, or district websites</p> <p>Technology-aided Resources: School website section for school personnel showing purpose or relationship of co-curricular programs, with the ability for comment and feedback</p>

Table 6. Metacognitive Competency in the School

<p>Indicator: The school’s key documents explain the value of metacognitive competency and how it is enhanced through specific roles and relationships.</p> <p>Objective: The school’s key documents will explain the value of metacognitive competency and how it is enhanced through specific roles and relationships.</p> <p>Evidence: Copies of the school’s mission statement, compact with parents, staff employment manuals, and student handbook.</p>	<p>School Culture: Include in the school’s mission statement, compact with parents, staff employment manuals, and student handbook a recognition of the value of metacognitive competency.</p>	<p>Resources: Clear and readily accessible documents including the school’s mission statement, compact with parents, staff employment manuals, and student handbook that include a recognition of the value of metacognitive competency, post the documents on the school website; create a school-wide system for measuring and monitoring individual and school-wide metacognitive growth</p> <p>Technology-aided Resources: Create and post brief video interviews/cameos of parents, educators, and students talking about metacognitive values; post links to articles, blogs, or videos of renowned educators or thought leaders stressing the importance of metacognition</p>
<p>Indicator: The school promotes metacognitive competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p> <p>Objective: The school will promote metacognitive competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p> <p>Evidence: Documentation of the promotion of metacognitive competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p>	<p>School Culture: Promote metacognitive competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p>	<p>Resources: Clear and readily accessible document explaining the school culture, how it promotes metacognitive competency, and procedures and schedules for the same. Post the document on the school website.</p> <p>Technology-aided Resources: Social networks and in-school chat groups to recognize and celebrate metacognitive competencies; consider virtual competitions with “crowd-sourced” (peers, educators, parents, community) judging; consider the use of digital “badges” recognizing metacognitive milestones; create digital portfolios of student metacognitive accomplishments; build a nomination and award system into the school website</p>

Table 7. Motivational Competency in the School

Theory of Action	When the school embeds motivational competency in its curriculum, co-curricular programs, and school culture, students will more readily engage and persist with learning.	
Goal	The motivational competency of all students, including a growth mindset, value of mastery, and connecting learning tasks with students’ personal aspirations, will be enhanced through the school’s curriculum, co-curricular programs, and culture.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: All teachers and teacher teams plan instruction with a curriculum guide that includes methods to enhance student motivation to learn.</p> <p>Objective: All teachers and teacher teams will plan instruction with a curriculum guide that includes methods to enhance student motivation to learn.</p> <p>Evidence: Copies of the aligned curriculum and lesson plans including methods to enhance student motivation to learn. Copies of team and teacher planning templates.</p>	<p>Curriculum: Include in curriculum guides methods teachers can employ to stimulate interest in topics, promote a growth mindset, encourage the value of mastery, and connect topics to students’ aspirations.</p>	<p>Resources: Clear and readily accessible documents aligning standards, curriculum, and instruction that include methods to enhance motivation to learn; resources, including links to websites that support motivation to learn and provide lesson plans and materials. Post aligned and enhanced curriculum on school website.</p> <p>Technology-aided Resources: School website section for school personnel showing alignment, with the ability for comment and feedback; Consider incorporating “game mechanics” into the curriculum when appropriate.</p>
	<p>Curriculum: Identify elements of the aligned curriculum that encourage student motivation to learn and add to the curriculum where these elements are not apparent.</p>	<p>Resources: Clear and readily accessible documents that show the elements of the curriculum that specifically address student motivation to learn. Post the documents on the school website.</p> <p>Technology-aided Resources: “Recommended” lists of vetted software, apps, and other curricula designed to enhance motivation to learn; digital video examples of educators, volunteers, and parents using strategies to enhance motivation to learn</p>
<p>Indicator: All staff conducting co-curricular programs fulfill the purposes of the programs including appropriate elements of student motivation to learn.</p> <p>Objective: All staff conducting co-curricular programs will fulfill the purposes of the programs including appropriate elements that enhance student motivation to learn.</p> <p>Evidence: Copies of co-curricular program descriptions and activities.</p>	<p>Co-curricular Programs: Include in the purpose of each co-curricular program elements of student motivation to learn.</p>	<p>Resources: Clear and readily accessible documents that describe the purpose of each co-curricular program and the elements that encourage student motivation to learn. Post the documents on the school website.</p> <p>Technology-aided Resources: School website section for school personnel showing purpose or relationship of co-curricular programs, with the ability for comment and feedback</p>

Table 7. Motivational Competency in the School

<p>Indicator: The school’s key documents explain the value of motivational competency and how it is enhanced through specific roles and relationships.</p> <p>Objective: The school’s key documents will explain the value of motivational competency and how it is enhanced through specific roles and relationships.</p> <p>Evidence: Copies of the school’s mission statement, compact with parents, staff employment manuals, and student handbook.</p>	<p>School Culture: Include in the school’s mission statement, compact with parents, staff employment manuals, and student handbook a recognition of the value of a growth mindset, mastery, and student aspirations.</p>	<p>Resources: Clear and readily accessible documents including the school’s mission statement, compact with parents, staff employment manuals, and student handbook that include a recognition of the value of motivational competency. Post the documents on the school website.</p> <p>Technology-aided Resources: Post brief video interviews/cameos of parents, educators, and students talking about the motivation to learn; post links to articles, blogs, or videos of renowned educators or thought leaders stressing the importance of learning motivation</p>
<p>Indicator: The school promotes motivational competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p> <p>Objective: The school will promote motivational competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p> <p>Evidence: Documentation of the promotion of motivational competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions</p>	<p>School Culture: Promote motivational competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p>	<p>Resources: Clear and readily accessible document explaining the school culture, how it promotes motivational competency, and procedures and schedules for the same. Post the document on the school website.</p> <p>Technology-aided Resources: Social networks and in-school chat groups to recognize and celebrate motivation to learn; foster a creative environment where students are encouraged to bring their own interests into cognitive and metacognitive areas; create digital portfolios of students personalized learning projects, showcase samples at school events</p>

Table 8. Social/Emotional Competency in the School		
Theory of Action	When the school embeds social/emotional competency in its curriculum, co-curricular programs, and school culture, every student will grow in (1) understanding and managing emotions, (2) setting and achieving positive goals, (3) feeling and showing empathy for others, (4) establishing and maintaining positive relationships, and (5) making responsible decisions.	
Goal	The social/emotional competency of all students will be enhanced through the school's curriculum, co-curricular programs, and culture.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: All teachers and teacher teams plan instruction with a curriculum guide that includes objectives for social/emotional competency.</p> <p>Objective: All teachers and teacher teams will plan instruction with a curriculum guide that includes objectives for social/emotional competency.</p> <p>Evidence: Copies of the aligned curriculum and lesson plans including methods to enhance social/emotional competency. Copies of team and teacher planning templates.</p>	Curriculum: Include objectives for social/emotional competency in the aligned and expanded curriculum and in instructional plans.	Resources: Clear and readily accessible documents aligning standards, curriculum, and instruction that include objectives for social/emotional competency; resources, including links to websites that support social/emotional competency and provide lesson plans and materials. Post aligned and enhanced curriculum on school website. Technology-aided Resources: School website section for school personnel showing alignment, with the ability for comment and feedback
	Curriculum: Identify elements of the aligned curriculum that enhance social/emotional competency and add to the curriculum where these elements are not apparent.	Resources: Clear and readily accessible documents that show the elements of the curriculum that specifically address social/emotional competency. Post the documents on the school website. Technology-aided Resources: "Recommended" lists of vetted software, apps, and other curricula designed to enhance social/emotional competency; digital video examples of educators, volunteers, and parents using strategies to enhance social/emotional competency
<p>Indicator: All staff conducting co-curricular programs fulfill the purposes of the programs including appropriate elements of social/emotional competency.</p> <p>Objective: All staff conducting co-curricular programs will fulfill the purposes of the programs including appropriate elements that enhance social/emotional competency.</p> <p>Evidence: Copies of co-curricular program descriptions and activities.</p>	Co-curricular Programs: Include in the purpose of each co-curricular program elements of social/emotional competency.	Resources: Clear and readily accessible documents that describe the purpose of each co-curricular program and the elements that enhance social/emotional competency. Post the documents on the school website. Technology-aided Resources: School website section for school personnel showing purpose or relationship of co-curricular programs, with the ability for comment and feedback

Table 8. Social/Emotional Competency in the School

<p>Indicator: The school selects, implements, and evaluates evidenced-based programs that enhance social/emotional competency.</p> <p>Objective: The school will select, implement, and evaluate evidence-based programs that enhance social/emotional competency.</p> <p>Evidence: Description of selection criteria, programs adopted, implementation, and evaluation criteria and results.</p>	<p>Evidence-Based Programs: Determine areas of need for enhancing social/emotional competency; select evidence-based programs that address the needs; implement programs with fidelity; evaluate their results.</p>	<p>Resources: Needs assessment; descriptions of available programs, their purposes and results; implementation plans; evaluation procedures. Use embedded measurement systems when possible, including behavior measures typically conducted by schools. Post descriptions of selected programs, as well as opportunities for professional development on the school website.</p>
<p>Indicator: The school’s key documents explain the value of social/emotional competency and how it is enhanced through specific roles and relationships.</p> <p>Objective: The school’s key documents will explain the value of social/emotional competency and how it is enhanced through specific roles and relationships.</p> <p>Evidence: Copies of the school’s mission statement, compact with parents, staff employment manuals, and student handbook.</p>	<p>School Culture: Include in the school’s mission statement, compact with parents, staff employment manuals, and student handbook a recognition of the value of social/emotional competency.</p>	<p>Resources: Clear and readily accessible documents including the school’s mission statement, compact with parents, staff employment manuals, and student handbook that include a recognition of the value of social/emotional competency. Post the documents on the school website.</p> <p>Technology-aided Resources: Post brief video interviews/cameos of parents, educators, and students talking about social/emotional competency; post links to articles, blogs, or videos of renowned educators or thought leaders stressing the importance of social/emotional competency</p>
<p>Indicator: The school promotes social/emotional competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p> <p>Objective: The school will promote social/emotional competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p> <p>Evidence: Documentation of the promotion of social/emotional competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p>	<p>School Culture: Promote social/emotional competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.</p>	<p>Resources: Clear and readily accessible document explaining the school culture, how it promotes social/emotional competency, and procedures and schedules for the same. Post the document on the school website</p> <p>Technology-aided Resources: Social networks and in-school chat groups to recognize and celebrate social and emotional competency; consider the creation of a “digital citizenship” program that publically promotes and rewards strong social and emotional competencies; have clear “anti-bullying” guidelines for face-to-face, as well as digital and other interactions</p>

Context: Classroom

Table 9. Cognitive Competency in the Classroom		
Theory of Action	When teachers intentionally address students’ accessible background knowledge in their instruction, students’ cognitive competency is enhanced, every student’s reservoir of knowledge is expanded, and their new learning is facilitated.	
Goal	The cognitive competency of all students will be enhanced through teachers’ attention to each student’s growing reservoir of accessible background knowledge.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: All teachers reinforce elements of mastered knowledge that can be retained in memory through recitation, review, questioning, and inclusion in subsequent assignments.</p> <p>Objective: All teachers will reinforce elements of mastered knowledge that can be retained in memory through recitation, review, questioning, and inclusion in subsequent assignments.</p> <p>Evidence: Copies of teachers’ lesson plans; classroom observations.</p>	Provide professional development, including mentoring, for teachers on instructional practices that enhance students’ reservoir of accessible background knowledge.	<p>Resources: Curricula and protocol for professional development</p> <p>Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules</p>
	Provide resources and tools, including curriculum, that enhance (build and review) prior and background knowledge	<p>Resources: Curriculum library of supplemental materials, tagged or indexed by topic area, level</p> <p>Technology-aided Resources: “Recommended” lists of vetted software, apps, and other curricula designed to review and build background knowledge (such as e-books with hyperlinked text, library of student created background content)</p>
<p>Indicator: All teachers include vocabulary development (general vocabulary and terms specific to the subject) as learning objectives.</p> <p>Objective: All teachers will include vocabulary development (general vocabulary and terms specific to the subject) as learning objectives.</p> <p>Evidence: Copies of teachers’ lesson plans; classroom observations.</p>	Provide professional development, including mentoring, for teachers on instructional practices that build students’ vocabularies.	<p>Resources: Curricula and protocol for professional development</p> <p>Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules</p>
	Provide resources and tools, including curriculum, that build and require the use of enhanced vocabulary.	<p>Resources: Curriculum library of supplemental materials, tagged or indexed by topic area, level</p> <p>Technology-aided Resources: “Recommended” lists of vetted software, apps, and other curricula designed to build vocabulary (such as e-books with hyperlinked text, vocabulary apps); digital or hardcopy products of student created stories using new vocabulary</p>

Table 9. Cognitive Competency in the Classroom

<p>Indicator: All teachers assign rich reading and the application of the reading in written work and discussion.</p> <p>Objective: All teachers will assign rich reading and the application of the reading in written work and discussion.</p> <p>Evidence: Copies of teachers’ lesson plans; classroom observations.</p>	<p>Provide professional development, including mentoring, for teachers on instructional practices for integrating rich reading into assignments and the application of reading in written work and discussion.</p>	<p>Resources: Curricula and protocol for professional development; face-to-face and online delivery, synchronous and asynchronous; interactive learning modules</p>
	<p>Provide resources and tools, including curriculum, that enhance rich reading.</p>	<p>Resources: Curriculum library of supplemental materials, tagged or indexed by topic area, level</p> <p>Technology-aided Resources: “Recommended” lists of vetted software, e-books, or apps that provide richer reading experiences; digital or hardcopy products of student created stories or other written products</p>

Table 10. Metacognitive Competency in the Classroom

Theory of Action	When teachers provide instruction and modeling of metacognitive processes and strategies, students will more effectively manage their own learning.	
Goal	The metacognitive competency of all students will be enhanced through teachers’ instruction and modeling.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: All teachers teach and model the metacognitive process (goals, strategies, monitoring, and modification) and specific learning strategies and techniques.</p> <p>Objective: All teachers will teach and model the metacognitive process (goals, strategies, monitoring, and modification) and specific learning strategies and techniques.</p> <p>Evidence: Copies of teachers’ lesson plans; classroom observations.</p>	<p>Provide professional development, including mentoring, for teachers on instructional practices that enhance students’ metacognitive process and successful use of learning strategies and techniques.</p>	<p>Resources: Curricula and protocol for professional development</p> <p>Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules</p>
	<p>Provide resources and tools, including curriculum, that support and enhance successful student use of metacognitive processes.</p>	<p>Resources: Curriculum library of supplemental materials, tagged or indexed by metacognitive strategy, level</p> <p>Technology-aided Resources: “Recommended” lists of vetted software, apps, and other curricula designed to enhance student study skills, critical thinking and planning, and support the analyzing, evaluating, and creating levels of Bloom’s taxonomy</p>

Table 10. Metacognitive Competency in the Classroom

<p>Indicator: All teachers include self-checks, peer-checks, and documentation of learning strategies as part of assignment completion.</p> <p>Objective: All teachers will include self-checks, peer-checks, and documentation of learning strategies as part of assignment completion.</p> <p>Evidence: Copies of teachers’ lesson plans; classroom observations.</p>	<p>Provide professional development, including mentoring, for teachers on instructional practices that require students to use and document self-appraisal and learning strategies.</p>	<p>Resources: Curricula and protocol for professional development</p> <p>Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules</p>
	<p>Provide resources and tools, including curriculum, that support and require student use of self-appraisal and learning strategies.</p>	<p>Resources: Curriculum library of supplemental materials, tagged or indexed by metacognitive strategies, level</p> <p>Technology-aided Resources: “Recommended” lists of vetted software, apps, and other curricula designed to encourage self-review and analysis (such as “self-grading” knowledge checks); peer-coaching or review (such as peer think-aloud activities)</p>
<p>Indicator: All teachers teach methods of logic, synthesis, evaluation, and divergent thinking.</p> <p>Objective: All teachers will teach methods of logic, synthesis, evaluation, and divergent thinking.</p> <p>Evidence: Copies of teachers’ lesson plans; classroom observations.</p>	<p>Provide professional development, including mentoring, for teachers on instructional practices and content that include methods of logic, synthesis, evaluation, and divergent thinking.</p>	<p>Resources: Curricula and protocol for professional development</p> <p>Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules</p>
	<p>Provide resources and tools, including curriculum, that support and require student use of logic, synthesis, evaluation, and divergent thinking.</p>	<p>Resources: Curriculum library of supplemental materials, tagged or indexed by metacognitive strategies, level</p> <p>Technology-aided Resources: “Recommended” lists of vetted software, apps, and other curricula designed to encourage various types thinking (such as programs that teach students how to code logical thinking); using digital study aides and documenting steps along the way; collaboration and debate for synthesis or divergent thinking</p>

Table 11. Motivational Competency in the Classroom		
Theory of Action	When teachers promote a growth mindset, stretch students' interests, connect learning to student aspirations, and differentiate instruction, students will more readily engage and persist with learning.	
Goal	The motivational competency of all students, including a growth mindset, value of mastery, and connecting learning tasks with students' personal aspirations, will be enhanced through teachers' attributions and instructional practices.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: All teachers promote a growth mindset by attributing learning success to effort and self-regulation and insist upon (and reward) persistence to mastery.</p> <p>Objective: All teachers will promote a growth mindset by attributing learning success to effort and self-regulation and insist upon (and reward) persistence to mastery.</p> <p>Evidence: Copies of teachers' lesson plans; classroom observations.</p>	Provide professional development, including mentoring, for teachers on growth mindset and how to promote it through instruction, modeling, and attributions.	<p>Resources: Curricula and protocol for professional development</p> <p>Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules</p>
	Provide resources and tools that support and encourage student adoption of a growth mindset.	<p>Resources: Curriculum library of supplemental materials</p> <p>Technology-aided Resources: Digital catalogue of materials, lessons to enhance growth mindset which students may access</p>
<p>Indicator: All teachers stretch students' interests to find value in new topics and connect learning tasks to students' personal aspirations.</p> <p>Objective: All teachers will stretch students' interests to find value in new topics and connect learning tasks to students' personal aspirations.</p> <p>Evidence: Copies of teachers' lesson plans; classroom observations.</p>	Provide professional development, including mentoring, for teachers on instructional practices that stimulate interest in new topics and connect learning tasks with students' personal aspirations.	<p>Resources: Curricula and protocol for professional development</p> <p>Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules</p>
	Provide resources and tools that support and encourage student identification and enhancement of personal aspirations.	<p>Resources: Curriculum library of supplemental materials</p> <p>Technology-aided Resources: Digital catalogue of topics and areas of interest, and potential sources, which students may access</p>
	Provide resources and tools, including curriculum that tie together personalized learning interests and classroom instruction.	<p>Resources: Curriculum library of supplemental materials</p> <p>Technology-aided Resources: "Recommended" lists of vetted software, apps, and other curricula designed to encourage personalized learning, including a student's ability to move forward at one's own pace</p>

Table 11. Motivational Competency in the Classroom		
<p>Indicator: All teachers differentiate assignments to provide the right balance of challenge and attainability for each student.</p> <p>Objective: All teachers will differentiate assignments to provide the right balance of challenge and attainability for each student.</p> <p>Evidence: Copies of teachers' lesson plans; classroom observations.</p>	Provide professional development, including mentoring, for teachers on instructional differentiation for all students.	Resources: Curricula and protocol for professional development Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules
	Provide resources and tools, including curriculum that supports differentiated instruction.	Resources: Curriculum library of supplemental materials, tagged or indexed by topic and instructional level Technology-aided Resources: "Recommended" lists of vetted software, apps, and other curricula that either provides, or recommends differentiated instruction based on ability, interest, and need
	Support the creation of flexible educator "teams" working with various student ratios and varying techniques, to better meet the individual strengths and needs of each student.	Resources: Flexible schedules for teams; documentation of individual student ability, interest, and need Technology-aided Resources: Digital tools or apps to support scheduling, real time needs assessment, flexible grouping

Table 12. Social/Emotional Competency in the Classroom		
Theory of Action	When teachers provide instruction, modeling, classroom norms, and caring attention that promote students' self-respect and responsibility, every student will grow in social competency.	
Goal	The social/emotional competency of all students will be enhanced through teachers' instruction, modeling, classroom norms, and caring attention that promote students' self-respect and responsibility.	
Logic Model		
Indicator/Objective/Evidence	Strategy	Resources, Technology
<p>Indicator: All teachers teach and reinforce positive social skills, self-respect, relationships, and responsibility for the consequences of decisions and actions.</p> <p>Objective: All teachers will teach and reinforce positive social skills, self-respect, relationships, and responsibility for the consequences of decisions and actions.</p> <p>Evidence: Copies of teachers' lesson plans; classroom observations.</p>	Provide professional development, including mentoring, for teachers on instructional practices and content that enhance students' social skills, self-respect, and responsibility for the consequences of decisions and actions.	Resources: Curricula and protocol for professional development Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules
	Provide resources and tools that encourage and enhance students' social skills, self-respect, and responsibility for the consequences of decisions and actions.	Resources: Curriculum library of supplemental materials Technology-aided Resources: "Recommended" lists of vetted software, apps, and other curricula designed to enhance student social skills, self-respect, and self-responsibility, including positive online social games

Table 12. Social/Emotional Competency in the Classroom		
<p>Indicator: All teachers establish classroom norms for personal responsibility, cooperation, and concern for others.</p> <p>Objective: All teachers will establish classroom norms for personal responsibility, cooperation, and concern for others.</p> <p>Evidence: Copies of teachers' classroom norms, rules, procedures.</p>	Provide professional development, including mentoring, for teachers on classroom management, classroom norms, and ways to teach and reinforce personal responsibility, cooperation, and concern for others.	<p>Resources: Curricula and protocol for professional development</p> <p>Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules</p>
	Provide resources and tools that support classroom management of social/emotional competency.	<p>Resources: Curriculum library of supplemental materials</p> <p>Technology-aided Resources: "recommended" lists of vetted software, apps, and other tools designed to assist in classroom management, classroom norms, personal responsibility, cooperation, and concern for others, including social games and digital "badges" (recognition for appropriate pro-social behavior)</p>
<p>Indicator: All teachers are attentive to students' emotional states, guide students in managing their emotions, and arrange for supports and interventions when necessary.</p> <p>Objective: All teachers will be attentive to students' emotional states, guide students in managing their emotions, and arrange for supports and interventions when necessary.</p> <p>Evidence: Copies of teachers' lesson plans; classroom observations; anecdotal records; referrals for supports and interventions.</p>	Provide professional development, including mentoring, for teachers on recognizing students' emotional states, helping students manage their emotions, and arranging for supports and interventions when necessary.	<p>Resources: Curricula and protocol for professional development</p> <p>Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules</p>
	Provide resources and tools that support teacher and student recognition and understanding of emotional states.	<p>Resources: Curriculum library of supplemental materials</p> <p>Technology-aided Resources: "Recommended" lists of vetted software, apps, and other tools designed to support teacher and student recognition and understanding of emotional states, including role-playing social games</p>
<p>Indicator: All teachers use cooperative learning methods and encourage questioning, seeking help from others, and offering help to others.</p> <p>Objective: All teachers use cooperative learning methods and encourage questioning, seeking help from others, and offering help to others.</p> <p>Evidence: Copies of teachers' lesson plans; classroom observations.</p>	Provide professional development, including mentoring, for teachers on cooperative learning methods and the encouragement of questioning and helping.	<p>Resources: Curricula and protocol for professional development</p> <p>Technology-aided Resources: Face-to-face and online delivery of professional development, synchronous and asynchronous; interactive learning modules</p>
	Provide resources and tools that support teacher and student recognition and understanding of emotional states.	<p>Resources: Curriculum library of supplemental materials</p> <p>Technology-aided Resources: "Recommended" lists of vetted software, apps, and other tools designed to support cooperative learning, including collaborative projects and presentations</p>

References

- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bonk, C. J., & Graham, C. R. (2006). *The handbook of blended learning environments: Global perspectives, local designs*. San Francisco, CA: Jossey-Bass/Pfeiffer.
- Center for Mental Health in Schools at UCLA. (2012). *Personalized learning and addressing barriers to learning: Two continuing education units*. Retrieved from <http://smhp.psych.ucla.edu/pdfdocs/personalized.pdf>
- Dede, C., & Richards, J. (Eds.). (2012). *Digital teaching platforms: Customizing classroom learning for each student*. New York, NY: Teachers College Press.
- Redding, S. (2011). School community: Working together for student success. In S. Redding, M. Murphy, & P. Sheley (Eds.), *Handbook on family and community engagement* (pp. 15–20). Lincoln, IL: Academic Development Institute. Retrieved from www.schoolcommunitynetwork.org. Also published by Information Age Publishing.
- Redding, S. (2013). Getting personal: The promise of personalized learning. In M. Murphy, S. Redding, & J. Twyman (Eds.), *Handbook on innovations in learning* (pp. 113–130). Philadelphia, PA: Center on Innovations in Learning, Temple University; Charlotte, NC: Information Age Publishing.
- Redding, S. (2013). *Through the student's eyes: A perspective on personalized learning*. Philadelphia, PA: Temple University (Center on Innovations in Learning).
- Redding, S. (2014). *Personal competencies: A conceptual framework*. Philadelphia, PA: Temple University (Center on Innovations in Learning).
- Reynolds, A., & Walberg, H. (1992, September). A structural model of science achievement and attitude: An extension to high school. *Journal of Educational Psychology, 84*(3), 371–382.
- Sandler, S. (2012). People v. 'personalization': Retaining the human element in the high-tech era of education. *Education Week, 31*(22), 20–22.
- Schifter, C. C. (2013). Games in learning, design, and motivation. In M. Murphy, S. Redding, & J. Twyman (Eds.), *Handbook on innovations in learning* (pp. 149–164). Philadelphia, PA: Center on Innovations in Learning, Temple University; Charlotte, NC: Information Age Publishing. Retrieved from <http://www.centeril.org/>
- Subotnik, R. F., & Walberg, H. J. (Eds.) (2006). *The scientific basis of educational productivity*. Greenwich, CT: Information Age Publishing.
- U.S. Department of Education. (2010). *Transforming American education: Learning powered by technology*. Washington, DC: Author. Retrieved from <http://www.ed.gov/technology/netp-2010>
- Walberg, H. J. (1981). A psychological theory of educational productivity. In F. H. Farley & N. J. Gordon (Eds.), *Psychology and education* (pp. 81–108). Chicago, IL: National Society for the Study of Education.
- Walberg, H. J., Fraser, B. J., & Welch, W. W. (1986). A test of a model of educational productivity among senior high school students. *Journal of Educational Research, 79*, 133–139.
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1993). Toward a knowledge base for school learning. *Review of Educational Research, 63*(3), 249–294.
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1997). Learning influences. In H. J. Walberg & G. D. Haertel (Eds.), *Psychology and educational practice* (pp. 199–211). Berkeley, CA: McCatchan.
- Wolf, M. (2010). *Innovate to education: System [re]design for personalized learning. A report from the 2010 symposium*. Washington, DC: Software & Information Industry Association. Retrieved from <http://siii.net/pli/presentations/PerLearnPaper.pdf>

About the Author

Sam Redding, Ed.D., is the Senior Learning Specialist of the Center on Innovations in Learning (CIL), Associate Director of the Center on School Turnaround, and a consultant with the Building State Capacity and Productivity Center. Since 1984, Dr. Redding has served as the Executive Director of the Academic Development Institute (ADI), and from 2005 to 2011 as Director of the Center on Innovation & Improvement. He codeveloped Indistar®, a web-based school improvement technology, and Indicators in Action®, web-based tutorials for online professional development for educators. Dr. Redding is a former high school teacher and college dean and vice president. He received the “Those Who Excel” Award from the Illinois State Board of Education in 1990, the Ben Hubbard Leadership Award from Illinois State University in 1994, and the Ernie Wing Award for Excellence in Evidence-Based Education from the California-based Wing Institute in 2012. He has been executive editor of the *School Community Journal* since 1991 and was a senior research associate of the Laboratory for Student Success (LSS) at Temple University from 1995 to 2005, where he led the Lab’s work on comprehensive school reform. He has edited four books on family–school relationships, authored a book on school improvement and personalized learning, edited books on statewide systems of support, and written articles and chapters in the areas of school management, school improvement, turnaround, and factors affecting school learning. He has consulted with more than 30 SEAs on their systems for school improvement.

**For more information about Personal Competencies
please visit
www.centeril.org**

*Through the Student's Eyes: A Perspective on
Personalized Learning*

Handbook on Innovations in Learning

*Personal Competency: A Framework for
Building Students' Capacity to Learn*

*The Something Other: Personal Competencies
for Learning and Life*

and other publications and resources

