

CHAPTER 1

Health/Social Emotional Education for the 21st Century

“Skills-based health education may be effective in the more difficult task of achieving and sustaining behavior change.”¹

► Introduction

We want our children to have healthy, happy, and productive lives, but how can we make it happen? Achieving this goal requires a group effort that includes family, friends, community, and schools. With sufficient resources, support, and partnerships, schools provide an excellent environment for students to acquire the knowledge and skills to become wholesome, achieving citizens of the 21st century.

► Skills-Based Health Education and Social Emotional Learning

Skills-based health education and social emotional learning (SEL) complement each other and provide the content and skills youth need to meet life’s challenges. SEL is the process of developing the skills needed for effective self-management as well as managing relationships with others. Acquiring these skills prepare youth for the challenges of establishing a career, being a productive citizen, and becoming a community leader.²

The Collaborative for Academic, Social, and Emotional Learning (CASEL) recommends four skill training practices (**Table 1.1**). These practices are aligned with the implementation practices of skills-based health education.

CASEL identifies five SEL core competencies (**Figure 1.1**). Skills-based health education aligns and supports each of these competencies (**Table 1.2**).

The combination of skills-based health education and SEL synergizes the effects of each resulting in greater knowledge and skill for our youth.

Education in America is interwoven with national legislation that mandates state and local accountability, increased flexibility, local control, expanded options for parents, and proven research-based methods of instruction.

“Our mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access.”³

Health/SEL advances these goals by empowering students to be physically, mentally, socially, and emotionally healthy and equipping them with the knowledge and skill to learn, achieve, and succeed in the 21st century.⁴

The Every Student Succeeds Act of 2015 includes English, reading or language arts, writing, science, technology, engineering, mathematics, foreign languages, civics and government, economics, arts, history, geography, computer science, music, career and technical education, *health*, physical education, and any other subject, the state or local educational agency determines as part of a “well-rounded education” with the purpose of providing all students access to an enriched curriculum and educational experience.^{5,p298} Placing health education with other courses of study, activities, and programming is a welcome elevation in status. In addition, the legislation provides funding to develop, implement, and evaluate comprehensive programs to support safe and healthy students. The language that supports health education also supports SEL. Examples include programs and activities that

- coordinate with other schools and community-based services and programs;
- foster safe, healthy, supportive, and drug-free environments that support academic achievement;
- promote the involvement of parents;
- partner with institutions of higher education, businesses, nonprofit and community organizations, or other entities that demonstrate success.^{5,p177}

Specific examples include

- drug and violence prevention programs and activities;
- school-based mental health services;

TABLE 1.1 Centers for Disease Control and Prevention Resources

CASEL Skill Training Practices	Alignment with Skills-Based Health Education
Sequenced —A planned set of activities that sequentially develop skills.	The National Health Education Standards provide grade span, sequenced performance indicators for each standard, PreK–12. Teacher candidates are trained to teach each performance indicator step-by-step: Explain why the skill is important, present the steps for developing the skill, model the skill, provide time for students to practice the skill using age-appropriate prompts, provide student feedback and reinforcement. ^{6,p14}
Active —Uses active forms of learning such as role-plays.	Skills-based health education is active pedagogy. Students are engaged in skills practice and performance throughout instruction. Examples include role-play, media and live presentations, puppet shows, use of graphic organizers to demonstrate proficiency, Internet presentations, development of goal-setting strategies such as healthy eating and exercise calendars, and public speaking demonstrations to advocate for a health-enhancing cause.
Focused —Devotes sufficient time to exclusively develop social emotional skills.	Districts determine the time allotted to skills-based health education. However, to demonstrate the importance of adequate instructional time, acquisition of health knowledge begins after 15 hours of instruction particularly in grades 4–7. To affect attitudes and practices, students need 45–50 hours of instruction. Maximum learning and attitude or behavior change occurs after 60 hours of instruction in one school year. ^{6,p63}
Explicit —Target specific social and emotional skills. ⁷	Skills-based health education focuses on student need. When data identifies a social and emotional need, instructors design assessment and instruction based on infused performance indicators. The performance indicators of each grade span address healthy behaviors, thereby, facilitating the inclusion of each of the SEL components. The chart that follows specifically demonstrates how each of the SEL components are aligned with the National Health Education Standards.

Data from Centers for Disease Control and Prevention.



FIGURE 1.1 Social Emotional Learning Core Competencies

Data from Collaborative for Academic, Social, and Emotional Learning. (2016, July 12). *Social and Emotional Learning Core Competencies*. Retrieved from CASEL: casel.org/social-and-emotional-learning/core-competencies

- programs and activities that integrate health and safety practices into school or athletic programs and support a healthy lifestyle such as nutrition education, structured physical education, chronic disease management, bullying prevention, interpersonal communication, safety education, mentoring and school counseling, decreasing school dropout rates, and establishment of learning environments and activities that enhance effective learning skills;
- high-quality training for school and specialized instructional support personnel related to suicide prevention, classroom management, crisis management, conflict resolution, human trafficking, school-based violence prevention, drug abuse prevention, bullying and harassment prevention;
- child sexual abuse awareness and prevention programs.^{5,p179}

In addition to school-based programs, the Every Student Succeeds Act also funds 21st Century Community Learning Centers that provide opportunities for academic enrichment, youth development activities, service learning, nutrition and health education, drug and violence

TABLE 1.2 CASEL Skill Training Practices

Social Emotional Competency

National Health Education Standards

Self-awareness is the ability to accurately recognize emotions and thoughts and their effect on behavior. It includes assessing personal strengths and limits and gaining a sense of confidence and optimism.

Self-awareness aligns with Standard 2, Analyzing Influences, where students analyze the influence of family, peers, culture, media, technology, and other factors on health behavior.⁶ If the influence is positive, students reinforce the behavior and if negative, they learn to cope in a healthy way. The acquisition of this skill provides the students with an understanding of their personal strengths and limits. It enhances their confidence, efficacy, and the positive attitude of knowing they have the skill to cope with a variety of influences.

Self-management is the ability to effectively regulate emotions, thoughts, and behaviors in a variety of situations such as those that require stress management, impulse control, self-motivation, and goal setting.

Self-management aligns with Standard 7, Practicing Health-Enhancing Behaviors. In this standard, students demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks. In Standard 6, Goal Setting, students demonstrate the ability to use goal-setting skills to enhance health.⁶ Both standards teach the very skills listed as examples.

Social awareness is the ability to understand different viewpoints and empathize with people from different backgrounds and cultures, understand social and ethical norms, and identify family, school, and community resources.

Social awareness is most closely aligned with Standard 4, Interpersonal Communication, where students demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks. Successful acquisition of conflict and negotiation skills include understanding different viewpoints and being empathetic. Standard 2, Analyzing Influences, and Standard 8, Advocacy, where students demonstrate the ability to advocate for personal, family, and community health, align with social and ethical norms. Standard 3, Accessing Information, where students demonstrate the ability to access valid information and products, and services to enhance health, is aligned with identifying resources.⁶

Relationship skills include the ability to establish and maintain healthy relationships with a variety of people. Skills include clear communication, active listening, cooperation, resisting negative peer pressure, conflict negotiation, and asking for help.

Relationship skills are most closely aligned with Standard 4, Interpersonal Communication. The skills in this component are very consistent with the Standard 4 PreK–12 performance indicators.

Responsible decision making includes the ability to make personal behavior and social interaction choices based on ethics, safety, norms, evaluation of possible solutions and consequences, and well-being.⁸

Responsible decision making is directly aligned with Standard 5, Decision Making, where students demonstrate the ability to use decision-making skills to enhance health.⁶

Data from Joint Committee on National Health Education Standards. (2007). *National Health Education Standards, Achieving Excellence*. (2nd ed.). Atlanta, GA: American Cancer Society; Payton, J. W. (2008). *The positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews*. Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.

prevention programs, counseling, arts, music, physical fitness and wellness programs, technology education, financial and environmental literacy, mathematics, science, career and technical programs, and internship or apprenticeship programs and parent engagement opportunities.^{5,p182}

With the power of the legislation and funding, district administrators, health/SEL educators, and community leaders develop a comprehensive, PreK–12 skills-based health/SEL program that embraces the Whole School, Whole Community, Whole Child (WSCC) Model and prepares students for life in the 21st century.

► Why Is Comprehensive Skills-Based Health/SEL Important?

“The academic success of America’s youth is strongly linked to their health.”⁹

Without our health, life poses many unwelcome challenges. It may be more difficult to concentrate, stay on task, or care about things other than our own feelings. We learn to be healthy, but how? Some of us learn from our parents,

friends, family, media, the Internet, and other sources. While a modicum of this information is valid and reliable, a good portion is hearsay, folklore, or plainly incorrect.

Dr. Pat Cooper, the former superintendent of the McComb School District in Mississippi, said, “Our children must be healthy to learn but first they must learn how to be healthy.”¹⁰ To realize this vision that all children learn how to be healthy and receive information and skills that prepare them for personal and academic success in the 21st century, schools provide quality skills-based health/SEL education from pre-kindergarten through grade 12.

Quality school-based health education, according to the American Cancer Society, uses the National Health Education Standards as the foundation for curriculum development. They concentrate on increasing **functional health knowledge** and the skills needed for healthy living such as identifying the influence of family, peers, culture, media, and technology on behavior, accessing and using valid health information, communicating, making health-enhancing decisions, setting goals, practicing healthy behaviors, and advocating for self and others.¹¹

If our students learn to be healthy at a young age, consider the positive impact on their personal, social, emotional, and academic lives as they mature and prepare for life in the 21st century. A comprehensive, PreK–12 skills-based health/SEL education program incorporating the National Health Education Standards and the Social and Emotional Learning Competencies helps students establish healthy behaviors that last into adulthood.

Comprehensive skills-based health/SEL education promotes the health, safety, and academic achievement of youth by decreasing risk behaviors and developing and maintaining healthy behaviors.¹¹ School health/SEL education along with the WSCC team also serves as a funnel through which local, state, and national health programs and funding reach all children in a coordinated, organized, and sequential manner. Each child in every school at all grades has access to a high-quality program and learns the knowledge and skills needed for a healthy and productive adulthood.

► A Brain-Friendly Pedagogy

Brain research explains why certain educational strategies work while others do not.^{12,pv} Neural networks form as a result of actual experience, so if we increase student engagement and performance-based assessment, we help the brain grow! Role-plays, graphic organizers, cooperative learning, and problem-based learning are examples of skills-based/SEL strategies that work according to brain function.

The role-play is a brain-friendly strategy common in skills-based health/SEL instruction. Here, the student constructs and participates in a role-play, using the performance indicators as the foundation to demonstrate proficiency in content and skill. It is a stimulating, engaging,

and student-centered approach to learning that provides practice in meeting everyday challenges in a healthy way.

Graphic organizers are an excellent tool to display content or show the sequence of a skill because they increase understanding and the retention of information. The structure of the organizers is similar to the brains and has many connections and a variety of links. Visualize a graphic organizer for memory, images, and sound. Memory is not stored in one part of the brain but in networks of networks. Images are stored in the visual cortex and sounds in the auditory cortex.^{12,p158} The networking (graphic organizer) connects and shows the relationships of all the parts.

Problem-based learning is recognized in skills-based health/SEL education as the performance task (prompt, rubric, and support information). Students work in cooperative learning groups to solve age-appropriate, real-life problems using the content and skills learned in health class. It is self-directed, active, brain-engaged learning that includes reasoning, critical thinking, and collaboration skills activated through intrinsic motivation. Because the brain is naturally inquisitive and collaborative, this pedagogy enhances brain function.^{7,p114} Project-based learning engages the student in a complex task that results in a product, an event, or presentation. Our brains gravitate to challenges, contributions, and relevant tasks, and successful completion of the performance task encourages students to participate in this strategy.^{12,p118} This skills-based pedagogy is a better way to learn because students are engaged in their learning and attain a better understanding of how to use knowledge and skill to solve real-life problems.^{12,p142}

Cooperative grouping occurs during problem-based learning and is a key pedagogical skills-based strategy and increases on-task time and student achievement. Grouped students receive the performance task (prompt, rubric, and support information), and then plan and implement the authentic assessment, a demonstration of content and skill learned in the skills unit. Cooperative group learning activates the reward system in the brain and results in the release of dopamine.

Collaboration provides the opportunity for students to practice self-awareness and social awareness and feel important, influential, powerful, appreciated, and honored by their peers. This strategy enhances intrinsic motivation and results in learning more in smaller groups than in larger groups.

Feeling safe and valued as a result of cooperative learning, the student is motivated to achieve, interact, problem solve, and make decisions.^{13,p57} Oxytocin is released during social bonding and activities, such as group learning, that develop trust. In order for these strategies to succeed, however, students learn the social and empathy skills necessary to function as a member of a group such as being an attentive listener, showing appreciation, not allowing put-downs, providing the right to pass during a group activity, and demonstrating mutual respect.^{13,pp57–58}

The student brain is programmed to seek and find.^{12,p148} Skills-based health/SEL education challenges the student, in a collaborative, safe, learning environment, to seek and find a resolution to an age-appropriate problem using the knowledge and skill learned in class. Proficiency is demonstrated by the ability to access, adapt, analyze, apply, assess, choose, compare and contrast, defend, demonstrate, determine, describe, differentiate, distinguish, empathize, encourage, examine, explain, evaluate, formulate, identify, implement, justify, list, locate, predict, propose, recognize, regulate emotions, take perspective, and work cooperatively. Teachers design performance tasks for different levels of cognition, in brain-safe classrooms where students are members of a positive learning community. They experience learning through trial and error and are supported by the effective feedback from formative assessments. Students are motivated by the enthusiasm of the teacher, a knowledgeable and skilled educator,^{13,p149} who knows the value and power of skills-based health/SEL education.

► The National Health Education Standards

The foundation of comprehensive skills-based health education is the *National Health Education Standards, Achieving Excellence (2nd ed.)* (Figure 1.2). The standards were

revised and published in 2007 and embrace the knowledge and skills students need to acquire, maintain, and promote healthy behaviors. These standards provide a framework for curriculum, instruction, assessment, and accountability.

The first standard addresses concepts related to health promotion and disease prevention to enhance health. The standards do not, however, specify the content school districts include in a comprehensive PreK–12 health program but do provide districts with the flexibility to choose material from the common health education content areas (Figure 1.3) according to the needs of their students.

Standards 2–8 are skills: analyzing influences; accessing valid information, products, and services; using interpersonal communication; making decisions; setting goals; practicing healthy behaviors; and advocating for personal, family, and community health. They are sequenced to show progression from knowledge to the application of skills.

Performance indicators accompany each standard and clarify the functional health content (Standard 1) and skill (Standards 2–8) for each grade span of the standard (PreK–2, 3–5, 6–8, 9–12). The numbers that precede the performance indicator (Figure 1.4) signify the standard, the last year of the grade span, and the number of the performance indicator in the sequence. The performance indicator verbs inform assessment and instruction. The summative authentic assessment provides students the arena

Standard 1	• Comprehend concepts related to health promotion and disease prevention to enhance health.
Standard 2	• Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
Standard 3	• Demonstrate the ability to access valid information and products and services to enhance health.
Standard 4	• Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
Standard 5	• Demonstrate the ability to use decision-making skills to enhance health.
Standard 6	• Demonstrate the ability to use goal-setting skills to enhance health.
Standard 7	• Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
Standard 8	• Demonstrate the ability to advocate for personal, family, and community health.

FIGURE 1.2 The National Health Education Standards

Data from Joint Committee on National Health Education Standards. (2007). *National Health Education Standards, Achieving Excellence*. (2nd ed.). Atlanta, GA: American Cancer Society.

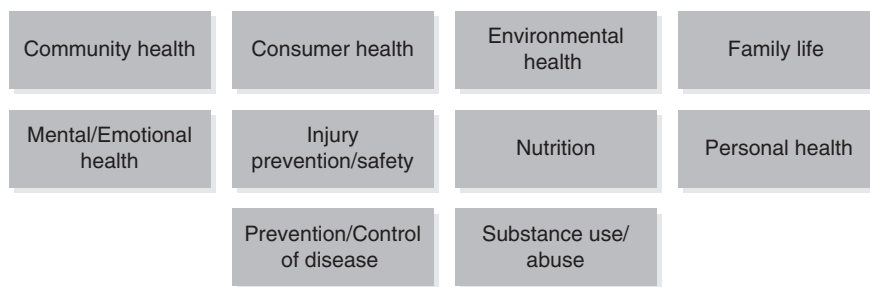


FIGURE 1.3 Common Health Education Content Areas

Data from Joint Committee on National Health Education Standards. (2007). *National Health Education Standards, Achieving Excellence*. (2nd ed.). Atlanta, GA: American Cancer Society.

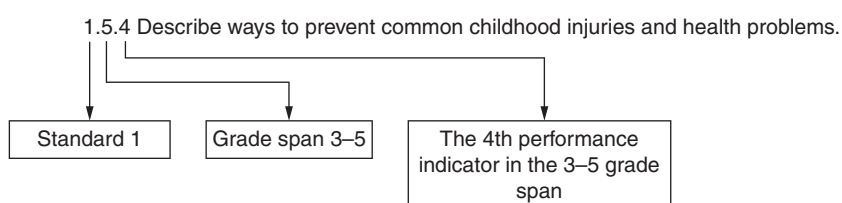


FIGURE 1.4 Performance Indicator Numbering System

to demonstrate knowledge and skill that is observable and measurable.^{14,p152} To reach proficiency, a student demonstrates expertise in all the performance indicators for that grade span.

The performance indicators are developmentally appropriate for each grade span and include all six levels of Bloom’s original taxonomy (**Figure 1.5**). In the 1990s, Lorin Anderson, a student of Bloom, revised the taxonomy and transformed the nouns of each level to verbs (remember, understand, apply, analyze, evaluate, and create) thereby making them active and compatible with the performance indicator verbs and the challenge of the performance task.

Using infused performance indicators as behavioral objectives results in lessons that challenge students to demonstrate content and skill learned as a result of instruction. Through the grade spans, students traverse higher levels of Bloom’s taxonomy and are presented with increasingly more challenging performance tasks that include critical thinking and evaluative judgments.^{14,p153}

The knowledge (Remember) level expects students to retrieve and remember information. When they take in new information (Understand), and use it, students demonstrate understanding and reach the comprehension level. The application level requires them to use (Apply) knowledge to solve problems without much prompting. On the analysis level, students deconstruct a complex problem into smaller parts (Analyze) in order to understand it better. To synthesize, students organize individual ideas or parts into a new

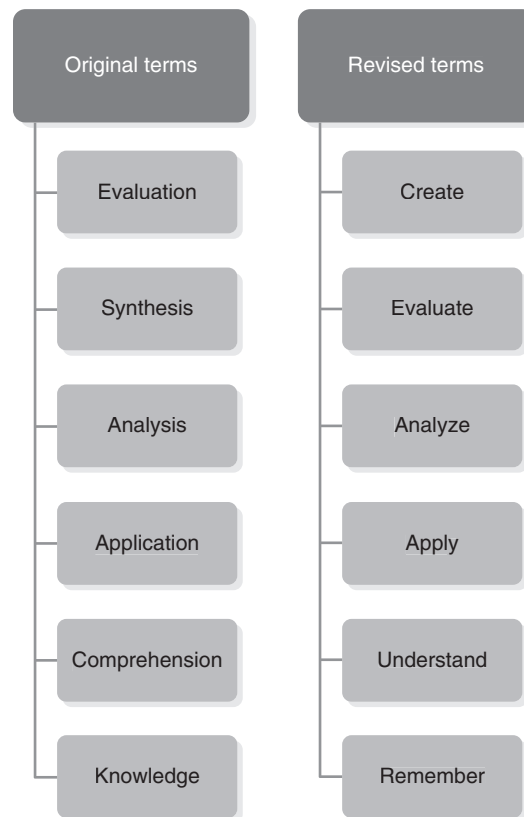


FIGURE 1.5 Bloom’s Taxonomy: Old and Revised

Data from Original Terms New Terms. (2016, January 19). Retrieved from tic.itm.ac.in/Blooms%20Tax.pdf

product (Create). They make judgments based on specific criteria or evidence on the evaluation level (Evaluate).¹⁵

As students gain knowledge in content and proficiency in skill from elementary to the middle and upper grades, they progress to more difficult tasks, such as examining, analyzing, predicting, comparing, and proposing. Even though elementary students are challenged with simpler tasks, they learn to achieve at higher levels with the appropriate instruction from a skilled health educator.

► Social Emotional Learning Competencies

The five social and emotional learning competencies are very consistent with and support the National Health Education Standards. Together, these skills and competencies provide knowledge and skills to help youth achieve academic success and be prepared for the 21st century.



► The Power of Coordination: Whole School, Whole Community, Whole Child Model

The effectiveness of school health education is increased when all stakeholders cooperate, collaborate, communicate, and coordinate to support the health of students, staff, school, families, and community. The WSCC Model provides a structure through which stakeholders work together to improve student learning and health by providing a student-centered environment where they are healthy, safe, engaged, supported, and challenged. WSCC has ten components: Health Education; Physical Education and Physical Activity; Nutrition Environment and Services; Health Services; Counseling, Psychological, and Social

Healthy People 2020 Adolescent Health Objectives

Competency	Examples
Self-awareness —Accurately recognize how personal emotions, thoughts, and values influence behavior; accurately assess personal strengths and limitations with confidence and optimism.	Identifying emotions, accurate self-perception, recognizing strengths, self-confidence, self-efficacy.
Social awareness —Take perspective of and empathize with others from different backgrounds and cultures.	Perspective taking, empathy, appreciating diversity, respect for others.
Responsible decision making —Make constructive choices about personal behavior and social exchanges based on ethics, safety, and social norms. Include the evaluation of consequences of each choice and how the decision contributes to the well-being of self and others.	Identify the problem, analyze the situation, solve the problem, evaluate the choice, reflect on the choice, contemplate ethical responsibility.
Self-management —Successfully regulate personal emotions, thoughts, and behaviors in a variety of settings along with managing stress, controlling impulses, being self-motivated and being able to set and meet personal and academic goals.	Impulse control, stress management, self-discipline, self-motivation, goal-setting, organizational skills.
Relationship skills —Establish and maintain healthy and satisfying relationships with a variety of individuals and groups along with being able to communicate clearly, be a good listener, cooperate, resist inappropriate peer pressure, constructively negotiate conflict, and ask for help when needed.	Communication, social engagement, relationship building, teamwork. ⁸

Reproduced from: U.S. Department of Health and Human Services. (2016, January 23). *Adolescent Health, Objectives*. Retrieved from HealthyPeople.gov: www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health/objectives

Services; Social and Emotional Climate; Physical Environment; Employee Wellness; Family Engagement; and Community Involvement. Representatives meet regularly to assess needs, design or implement policy, programs, and practice to meet those needs, then reflect on the efficacy.¹⁶



FIGURE 1.6 Whole School, Whole Community, Whole Child Model

Data from Centers for Disease Control and Prevention. (2016, January 20). *The Whole School, Whole Community, Whole Child Model*. Retrieved from Centers for Disease Control and Prevention: www.cdc.gov/healthyyouth/WSCC/Pdf/WSCC_fact_sheet_508c.pdf.

The student is the center of the model, and all components work to enhance his or her health and well-being. The student is an active partner in learning and developing well-being, is actively involved in the school, and engaged by the school administration through social media, surveys, town meetings, and focus groups. Administrators seek the opinion of the student about school health policies, programs, and services, in a continuous cycle of communication and feedback. The student perceives himself or herself as an essential part of the school, a change agent, a proponent of school improvement, and a person who is able to achieve personal health and academic success.^{17,p785,793}

To make the WSCC work efficiently, a school wellness team consisting of representatives from each component meets on a regular basis to assess student need, determine how to use resources, and coordinate and implement evidence-based policies, processes, and practices. Using the CDC School Health Index, the team assesses the current program.¹⁸ The results identify program strengths and weaknesses and provide a platform to engage the stakeholders to design and implement improvement plans.^{19,p755}

HEALTH EDUCATION

Comprehensive PreK–12 skills-based health education complies with state and national standards and is aligned with the characteristics of effective health education. Assessment, instruction, and curriculum are based on student need. Curriculum encompasses the physical, mental, emotional, and social dimensions of health and promotes content knowledge, healthy attitudes, and life skills. Planning, using the WSCC model, assures a consistency of health messages at home, and in the school and community.^{15,p732} Assessment of student progress in the attainment of standards is continuous and reported.

Research support for health education:

- Academic grades for low-income minority students, aged 8–11, improved when they participated in an asthma self-management program that included health education and parent involvement. Another asthma self-management program that included health education for asthmatic children and their classmates, an orientation for school principals and counselors, and communication with and

education of custodians, caretakers, and clinicians resulted in students' demonstrating higher grades in science.^{20,pp591-599}

- Elementary or high school students who participated in social skills training that also included teacher training improved their achievement. In a 6-year follow-up study of high school students who had received the training in elementary school, researchers found they had improved attendance and achieved higher scores on standardized tests than members of a control group. Students who received the highest level of training exceeded the control group for scores in language arts and math.^{20,pp591-599}
- Ten months after participating in a 5-month Personal Growth course that taught social skills and included teacher training, students demonstrated an increase in their grade point average, school bonding, and perception of school performance as compared to a control group.^{20,pp591-599}
- Academic success improved when social skills training included parents and community members and was incorporated into health education, breakfast programs, physical education, and mental and general health services.^{20,pp591-599}
- Prevention programs that include knowledge, attitudes, values, and life skills report a decrease in incidences of HIV/AIDS.¹
- Students engaging in violent behaviors have lower grades and test scores. Skills-based health education is designed to maintain or improve the behaviors of violent youth. Increasing student content knowledge and skill increases health literacy and impacts health and academic achievement.^{21,p751}
- Improving communication and social skills (Standard 4) such as resisting social pressure to smoke, use alcohol and other drugs, or engage in behaviors that result in unintended pregnancy may improve the health of teens. Studies show that smoking has a negative effect on grades and the use of drugs and early intercourse are associated with lower school grades. Also, teen mothers are less likely to complete high school or attend college.^{21,p752}

PHYSICAL EDUCATION AND PHYSICAL ACTIVITY

PreK–12 physical education is a planned, sequential curriculum that complies with state and national standards. It provides opportunities for students to learn functional knowledge and practice skills for a physically active life. A comprehensive physical education and physical activity program provides opportunities for students to be active and physically educated before, during, and after school, and in the community.^{19,p734}

Research support for physical education:

- Project SPARK (Sports, Play, and Active Recreation for Kids), a PreK–12 program, provides evidence-based physical activity, nutrition programs, curriculum, staff development, follow-up support, and equipment. Researchers completed a rigorous evaluation of SPARK and found significant gains in reading performance. The academic functioning of participating students was not compromised, even though time for physical education was taken from the school day.^{20,p597}
- Physical education programs that offered classes in fitness or skill training for 75 minutes each day resulted in no significant decrease in test scores and confirmed that physical education does not detract from academic achievement on standardized tests.^{20,p597}
- Students participating in physical activity improved academic achievement including concentration and attention, higher test scores, and higher math scores.
- More participation in physical education class is associated with better grades, standardized test scores, and classroom behavior.
- Time spent in recess that encourages pro-social behavior is associated with improved cognitive performance and classroom behavior.
- Brief classroom breaks that include physical activity are associated with improved cognitive performance, classroom behavior, and educational outcomes including standardized test, reading, and math scores.
- Participation in extracurricular physical activity is associated with higher grade point averages, lower dropout rates, and fewer disciplinary problems.^{21,p751}

NUTRITION ENVIRONMENT AND SERVICES

School nutrition services meet the standards for the National School Lunch and Breakfast Programs, consider the health and nutrition needs of all students, and ensure that competitive foods sold in the school meet the Smart Snacks in School standard. The nutrition program not only provides the food but also educates students about healthy eating by modeling the presentation of healthy foods and beverages, providing nutrition education, and displaying healthy food messages in the cafeteria and throughout the school.^{19,p732}

Research support for nutrition environment and services:

- A pre-/posttest examining the food and nutrition services in the Pennsylvania and Maryland schools showed that African American and low-income students who participated in the school breakfast program for 4 months or longer showed a significant increase in math scores and a decrease in absence and tardiness rates.^{20,p598}

- The relationship between a school breakfast program and academic performance conducted in six Massachusetts schools found that students who participated had an increase in total scale and language scores. Researchers also found “positive trends for mathematics and reading and decreases in tardiness.”^{20,p598}
- A 6-month inner-city, pre-/post-study examining diet, breakfast, and academic performance found that children who decreased their nutrition risk showed improvements in reading, math, social studies, science, and attendance.^{20,p598}
- Participation in the school nutrition program is associated with an increase intake of micronutrients, fruits, vegetables, and low-fat milk.^{21,p751}
- Access to drinking water results in better student hydration and improved cognitive functioning.^{20,p751}

SCHOOL HEALTH SERVICES

School health services collaborate with the school, family, and the community to provide links to services that empower students to cope with health and social stressors such as chronic health conditions and social and economic barriers to health. Within this collaboration, students learn to advocate for their own health and wellness.^{19,p733} The school nurse is key in helping students stay in school by identifying health problems. She provides first aid, emergency care and assessment, chronic health care management, wellness promotion, preventive services for students and staff, health care provider referrals, and student and parent education.^{20,p752}

Research support for school health services:

- Students in grades 6–12 who utilized their school health clinics showed reduced absenteeism and a significant, positive correlation with school graduation or grade promotion. African American male students who used the clinics were three times more likely to stay in school than their peers who did not.^{20,p598}
- Schools with smaller nurse-to-student ratios have lower absenteeism rates and higher graduation rates.
- Many chronic conditions are associated with decreased attendance, cognitive functioning, and test scores. School nurses identify students with chronic health conditions and provide referrals to services that support the student and help the family manage the condition.^{21,p752}
- School nurses screen for vision problems because they are associated with decreased standardized measures of literacy, reading scores, reading ability, and spelling.^{21,p752}
- Screening for oral health is important because students are likely to miss school due to dental pain, which results in lower grades.^{21,p752}

SCHOOL COUNSELING AND PSYCHOLOGICAL AND SOCIAL SERVICES

School counseling and psychological and social services support the mental, behavioral, social emotional health and academic achievement of students. Services include psychological assessments, interventions, and referrals. Providing for the needs of students contributes to their mental and behavior health and to a healthy school environment.^{19,p733}

Research support for school counseling and psychological and social services:

- In a study on the utility of psychosocial screening among 13- to 18-year-old public school students at a school clinic, researchers found that after 2 months of receiving school-based mental health and counseling services, absenteeism decreased by 50% and tardiness 25%.^{20,p598} A more recent study also links school-based mental health programs to improved attendance, student behavior, and test scores.^{21,p752}
- Universal mental health promotion programs may be effective in decreasing suspension rates while increasing positive classroom behavior and attendance.^{21,p752}

SOCIAL AND EMOTIONAL CLIMATE

The social and emotional climate of a school affects students’ level of engagement in school activities and programs, as well as peer, staff, family, community relationships, and academic achievement. A positive school climate contributes to effective teaching and learning because it promotes health, growth, and development under safe and supportive learning conditions.^{19,p733}

Research support for social and emotional climate:

- A positive, safe school climate is associated with a decrease in aggression and violence, peer victimization, and discipline. Furthermore, a positive, safe school climate is associated with decreased absenteeism and an increase in academic achievement.^{21,p753}
- A positive safe school climate is associated with increased student engagement. Students who are more involved with their school have better attendance, grades, and classroom behavior.^{21,p753}
- School connectedness is a strong protective factor in decreasing risky health behaviors such as substance use, early sexual initiation, violence, and risk of unintentional injury.^{21,p753}
- A correlation exists between school connectedness and academic achievement, school attendance, staying in school longer, higher grades, and classroom test scores.^{21,p753}

PHYSICAL ENVIRONMENT

The healthy and safe physical environment is vital to student learning. It includes the school building, everything in it, the land, and contiguous area. This component includes the physical condition of the building during regular functioning or renovation. The physical environment protects students and staff from physical threats, biological and chemical agents in the air, water, or soil, as well as contaminants brought into the school.^{19,p733}

Research support for a healthy physical environment:

- When allergens are present, students may experience asthma, lethargy, an inability to concentrate, and drowsiness. These factors have a negative effect on learning.^{21,p753}
- When the internal temperature is too high or inconsistent, students become drowsy or ill, affecting their ability to learn.^{21,p753}
- Poor classroom acoustics interfere with student concentration, comprehension, and lead to less than optimum performance.^{21,p753}
- Schools with full-spectrum light or full-spectrum light that simulates natural light are associated with increased school attendance and academic achievement.^{21,p753}
- When physical threats are addressed and students feel safe, a decrease in absenteeism and an increase in academic achievement occurs.^{21,p753}

EMPLOYEE WELLNESS

A comprehensive employee wellness program meets the health and safety needs of all employees and consists of coordinated programs, policies, benefits, and environmental supports that address adult risk factors and health conditions. In collaboration with the health insurance provider, schools offer resources, personalized health assessments, and flu vaccinations. A healthy school and a comprehensive employee wellness program decreases health insurance premiums, reduces a turnover in staff, and reduces the cost of hiring substitutes.^{19,pp732-733}

Research support for employee wellness:

- Participation in a “personalized aerobics lifestyle system program” showed significant improvements in self-reported health status and reduced absenteeism among school employees. This program was an intensive, 10-week intervention of health education, peer support, behavior management, and supervised exercise sessions held 1-day a week after school.^{20,p598}
- Healthy school staff support student health and may contribute to their academic success.^{21,p752}
- Unhealthy behaviors affect teacher productivity, classroom effectiveness, and absenteeism which, in turn, affect student learning.^{21,pp752-753}

- School staff provide powerful role models and may be influential in engaging students in healthy behaviors and practices.^{21,p753}

FAMILY ENGAGEMENT

Family engagement is continuous through the grade spans and facilitated by schools that welcome involvement. Families and the school collaborate to support and improve student health, learning, and personal development at school, home, and in the community.^{19,p734}

Research to support family engagement:

- Seattle Social Development Project is a school program that tries to prevent academic failure, drug use, and delinquency among low-income children. Training included teachers and parents to ensure that children received the same information and behavioral messages at school and home. Teachers received specific training in classroom management and social skills. Results of the program included increased class participation and more commitment to school. Girls showed lowered rates of substance abuse and boys increased their social and school-work skills.²²
- Academic grades for low-income minority students, aged 8–11, increased when they participated in an asthma self-management program that included health education and parent involvement. Academic success improved when social skills training for parents and the community was incorporated into health education, breakfast programs, physical education, mental health services, and health services.^{20,pp591-599}
- Students (elementary, middle, and high school) with parents engaged in the school are more likely to have increased attendance, higher grades and test scores, better social skills, improved classroom behavior, and graduate high school.^{21,p754}
- Students with parents engaged in the school are less likely to smoke cigarettes, drink alcohol, become pregnant, and be physically inactive, or emotionally distressed.^{21,p754}
- Parents involved in school health activities impact their children’s health behaviors and academic achievement.^{21,p754}
- Parents are more likely to engage with the school when they feel welcome and believe the school staff and students want and expect their involvement.^{21,p754}
- Offering programs on health care services, volunteering, and parent–teacher organization meetings increases parent engagement.^{21,p754}
- When parents believe being involved in school increases their child’s learning and well-being, their child’s academic performance improves.^{21,p754}

COMMUNITY INVOLVEMENT

The community involvement component consists of partnerships between the school and community, organizations, and local businesses who share assets, and volunteer to support student learning, development, and health-related activities. Schools reciprocate by connecting students to the community through community service learning projects, and providing school space for community health centers, or sharing the school fitness facilities.^{22,p733}

- Community involvement is associated with increased grades and test scores, improved school attendance, and student behavior.^{21,p754}
- Schools are more likely to improve student achievement when they have positive social relationships with community members and groups.^{21,p754}
- Student involvement with community service learning experiences and civic engagement is associated with improved school-related behaviors, decreased school suspension, and increased academic achievement.^{21,p754}

The advantages of utilizing the WSCC are many. School districts use staff, resources, and time more efficiently to address the needs of their students. Representatives of each component collaborate to assess needs and data collected from various tools, such as the School Health Index, Health Education Curriculum Assessment Tool, and the Youth Risk Behavior Survey (YRBS). They use the results of these assessments to share information and expertise; set goals; meet the needs of the students and district; implement programs that help the school, families, and community; and coordinate local, state, and national resources. Community agencies and institutions assist districts in providing programs and services. With community and district partners collaborating, barriers to learning decrease, while academic success increases.

► How Skills-Based Health/SEL Education Supports the National Initiatives Centers for Disease Control and Prevention

A student with healthy behaviors is better equipped to cope with personal and academic challenges and, upon reaching adulthood, has the knowledge and skills to navigate life, work, and the responsibilities of citizenship successfully.

School-based health/SEL instruction is predicated upon student need, which, in turn, is established by local, state, and national data. The Centers for Disease Control and Prevention (CDC)'s YRBS is an excellent data source.²³ The CDC conducts the biannual survey in public and private

schools, grades 9–12. Survey questions relate to **health risk behaviors**, which are the leading causes of death, disability, and social problems in the high school population. The CDC risk factors are shown in **Figure 1.7**.

Once the surveys are collected, the CDC analyzes the data to determine the health status and trends of youth and posts the results on their website. State Departments of Education also conduct the survey in randomly selected high schools and post their results. State agencies and the public use the data to collaborate, assess student needs, plan intervention strategies, and write curriculum and grants. Individual school districts implement the middle and high school YRBS questionnaire to determine their own student risk behaviors and use the data to the following:

- Compare district to state and national data to determine how to adjust curriculum and instruction to meet the emerging needs of students.
- Report student risk factors to the district and community and explain how comprehensive skills-based health/SEL education addresses them.
- Apply for grants funded through the Every Student Succeeds Act.
- Address social norms in health classes. When students are asked what is the percentage of drug or alcohol use and other risk factor usage, they usually overestimate. Using the actual data from a district helps to inform students that they are probably in the majority, not the minority, if they do not participate in risky behaviors.



FIGURE 1.7 CDC Risk Factors

Data from Centers for Disease Control and Prevention. (2016, January 22). *Youth Risk Behavior Surveillance System (YRBSS)*. Retrieved from Centers for Disease Control and Prevention : <http://www.cdc.gov/healthyyouth/data/yrbss/index.htm>.

TABLE 1.3 Social Emotional Competency and National Health Education Standards

DASH	Multimedia
Data	Protective Factors
Disparities	Program Evaluation
Effective Programs	Publications, Journal Articles, Resources
Funded Areas	Sexual Risk Behaviors
Funded Partners	Tools
Health and Academics	Whole School, Whole Community, Whole Child ²⁴

Data from: Joint Committee on National Health Education Standards. (2007). *National Health Education Standards, Achieving Excellence*. (2nd ed.). Atlanta, GA: American Cancer Society; Collaborative for Academic, Social, and Emotional Learning. (2016, July 12). *Social and Emotional Learning Core Competencies*. Retrieved from CASEL: casel.org/social-and-emotional-learning/core-competencies

- Develop comprehensive skills-based health/SEL education and health promotion goals.
- Propose policies, programs, and practices to meet the needs of students.
- Advocate for a coordinated school health program using the WSCC.

The CDC provides a wide variety of valid and reliable health information and resources, accessed through the Adolescent and School Health portal. (Table 1.3)

► Healthy People 2020

“The goal of the Healthy People 2020 Adolescent Health is ‘to improve the healthy development, health, safety, and well-being of adolescents and young adults.’²⁵

Healthy People 2020 establishes comprehensive national goals and objectives for improving the health of all Americans.²⁶ However, special attention is allocated to adolescents and young adults because they are 21% of the population and the behaviors they establish during youth impact their adult health. Consequently, providing goals for the long-term health of our youth benefits all. Leading causes of adolescent illness and death such as smoking are mostly preventable. Youth, during their developmental years, are influenced positively and negatively by individuals, peers, family, school, community, and society. Healthy People 2020 supports the positive development of youth and the adoption of healthy behaviors that safeguard a healthy and productive life in the 21st century.²⁷

The National Health Education Standards and Social Emotional Competencies support the Healthy People 2020 Adolescent goals because they provide PreK–12 knowledge

Healthy People 2020

Adolescent Health Objectives

AH-1 Increase the proportion of adolescents who have had a wellness checkup in the past 12 months	AH-7 Reduce the proportion of adolescents who have been offered, sold, or given an illegal drug on school property
AH-2 Increase the proportion of adolescents who participate in extracurricular and/or out-of-school activities	AH-8 Increase the proportion of adolescents whose parents consider them to be safe at school
AH-3 Increase the proportion of adolescents who are connected to a parent or other positive adult caregiver	AH-9 Increase the proportion of middle and high schools that prohibit harassment based on a student’s sexual orientation or gender identity
AH-5 Increase educational achievement of adolescents and young adults	AH-10 Reduce the proportion of public schools with a serious violent incident
AH-6 Increase the proportion of schools with a school breakfast program	AH-11 Reduce adolescent and young adult perpetration of, and victimization by, crimes ³

Reproduced from: U.S. Department of Health and Human Services. (2016, January 23). *Adolescent Health, Objectives*. Retrieved from HealthyPeople.gov: www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health/objectives

and skills to develop and maintain healthy behaviors. Learning content and skill/competencies at each grade span and demonstrating proficiency equips youth with the tools to overcome negative influences, make healthy decisions, and achieve academically.

► The Partnership for 21st Century Skills

Preparing students for the 21st century is a significant challenge. The Partnership for 21st Century Skills engaged teachers, education experts, and business leaders to determine the skills and knowledge needed for success at work, in life, and as a citizen. The result is the Framework for the Partnership for 21st Century Skills. Mastery of 21st century knowledge and skills (the rainbow in Figure 1.8), prepares youth to meet the personal and professional challenges of life.²⁶

Content knowledge is essential for life in the 21st century. The National Health Education Standards contribute to knowledge acquisition because each skills-based health/SEL lesson teaches content through the

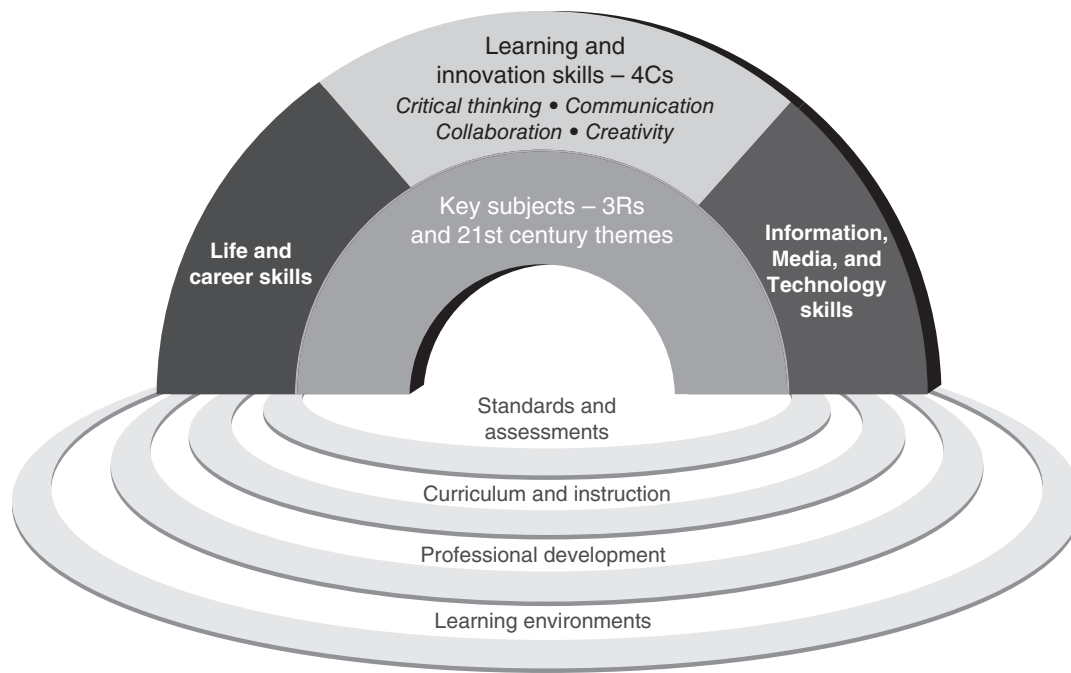


FIGURE 1.8 Partnerships for 21st Century Learning

From P21. (2016, January 23). *Framework for 21st Century Learning*. Retrieved from P21 Partnership for 21st Century Learning: www.p21.org/our-work/p21-framework.

skill. Standard 1 is the content standard and provides grade spans of performance indicators that challenge the student to demonstrate proficiency in health knowledge. Performance tasks always include reading, writing, and performance thereby strengthening proficiency in English language arts. Performance tasks may include a challenge that incorporates knowledge of world languages, the arts, mathematics, economics, science, geography, history, or government and civics.²⁶

Health literacy is another 21st century theme and is defined as, “Obtaining, interpreting, and understanding basic health information and services and using such information and services in ways that are health enhancing.”²⁸ The **HEAP** Health Literacy page is a resource for health/SEL educators. With a subscription, educators access the HEAP item bank, cognitive progression sets, HEAP books, development tools, distance learning, and access to the health literacy consultant.²⁹

The 21st Century Learning and Innovation Skills include creativity and innovation, critical thinking and problem solving, and communication and collaboration.

As students develop the performance task presentation, they work with peers (collaboration, SEL-relationship skills), under the coaching (formative assessment) of the teacher and use their creativity and innovation skills to transform the challenge of the performance task into a creative and innovative presentation that demonstrates proficiency of the targeted performance indicators. The P21 verbs of *creating*, *analyzing*, and *evaluating* are contained in the performance indicators of the higher grade level spans

even though communication (Standard 4, SEL-relationship skills) is a standard that requires students to demonstrate and use communication skills through all grade spans.

Critical thinking occurs throughout the National Health Education Standards and the SEL competency of responsible decision making. Problem solving is associated with Standard 5, Decision Making. Here, students read a prompt, identify the problem, work through decision making, conclude by selecting a healthy solution to the problem, and reflect on the outcome. This model is consistent with the P21 components of reasoning effectively, using systems thinking, making judgments and decisions, and solving problems.³⁰

The learning and innovation skill of communication and collaboration is taught throughout the National Health Education Standards, particularly Standard 4, Interpersonal Communication, and the SEL competency of responsible decision making. Students collaborate with peers to design a content and skill performance according to the challenge of a prompt. They articulate their thoughts and ideas effectively and demonstrate verbal and nonverbal communication and listening skills.³¹

The information, media, and technology skills are embedded in the National Health Education Standards and the SEL competency of social awareness. Standard 3 challenges students to access and evaluate valid information,³² products, and services to enhance health.^{6,p28} From the earliest grade span, children learn to identify health helpers, and valid sources of information, products, and services, and locate health resources. In the middle and upper grade

spans, students analyze and evaluate the validity of health information, products, and services; evaluate websites to determine their validity; and locate valid and reliable health products and services.³² Performance tasks include analysis of media messages and products, how the media influences health behavior, the construction of an advertisement for a healthy product, or the design and implementation of public service announcements (PSAs).³³

The National Health Education Standards support the P21 Life and Career Skills throughout the standards and grade spans. With a variety of performance tasks, students learn to adapt to different roles, responsibilities, and schedules within the group. As the health/SEL educator formatively assesses and provides effective feedback, the students continue their projects or make adjustments to them. Goal setting, Standard 6, also found in the SEL self-management competency, trains students to set short- and long-term goals, monitor progress, make adjustments when necessary, and reflect on the results. Skills-based health/SEL education students are self-directed learners who use self-checks to manage progress. Because students work with others from different social and cultural backgrounds to present the content and skill learned, they discover how to collaborate, respect differences, and work as a team to reach a goal.³³

▶ Common Core State Standards

The Common Core State Standards communicate what performance is expected through the grade levels. Early grades focus on core concepts and procedures, and provide time to teach and learn. The standards are based on international models, input from a variety of sources such as kindergarten through college teachers, state departments of education, scholars, assessment developers, professional organizations, parents, students, and the public.³⁴

The National Health Education Standards are closely aligned with the components of the English Language Arts standard. Students read prompts and support information from valid and reliable sources to prepare for their authentic assessment presentation. This skills-based activity reinforces reading foundation skills and informational texts. Writing prompts, reflections, filling in graphic organizers, and designing demonstration posters all train students to write. Because they are required to demonstrate correct grammar, their language skills are enhanced. As students research and report valid and reliable information, they learn how to research. When presenting their project, they are honing their speaking and listening skills.³⁴

Review Questions

1. How does the Every Student Succeeds Act support health/SEL education?
2. Why is it important to provide comprehensive skills-based health/SEL education?

3. List the National Health Education Standards and categorize them as either content or skill.
4. List and define the SEL competences and give examples of how to use them in skills-based instruction.
5. How does brain research support skills-based health/SEL education?
6. Explain the WSCC and the role of health/SEL education as a component.
7. Explain two research reports that support skills-based health/SEL education.
8. Explain how YRBS data is used to improve skills-based health/SEL education.
9. How does skills-based health/SEL education support the Partnership for 21st Century Skills?
10. How does skills-based health education align with the competencies of SEL?

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