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1 TEACHERS SHAPE THE FUTURE

InTASC Standards Addressed: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

LEARNING OBJECTIVES

After you read this chapter, you should be able to

1.1   Support the view that teaching is an inspiring, satisfying, and important profession.

1.2   Identify the personal qualities of effective teachers.

1.3   Critique education's moral purposes and how teachers enact these through caring.

1.4   Assess technology's role in educating students in today's global environment.

1.5   Identify and explain the 21st century skills today's students need to learn.

1.6   Describe the InTASC Model Core Standards and key themes for teachers.

"Teachers are heroes. Doctors save lives, but teachers help to create and shape them. What work could be more valuable?"[1] In fact, the 2020 COVID-19 pandemic validated teachers as frontline workers essential to our children, our economy, and the American way of life.

Today's American educators are engaged in an endeavor without precedent: supporting high standards for every student and providing the needed academic and affective scaffolding to ensure that every student reaches them. Effective teachers are vital if every American child is to receive a first-class education and the life-enhancing opportunities that it brings. But to be effective, teachers need a strong academic and professional preparation—a solid grounding in content knowledge and pedagogy and, increasingly, teaching well on digital platforms—*plus* healthy doses of idealism and optimism if they are to respond successfully to their diverse students and meet daily classroom challenges. They need an *education*, not merely *training* to develop the essential knowledge, skills, and perspectives that inspire a sincere commitment to understand every learner's needs and obstacles, meeting the former and overcoming the latter. Future teachers also need an education that will enable them to become reflective decision-makers who work collegially and ethically with other educators, parents, and their communities in their students' best interests and who expect to improve their professional practice throughout their careers.

As an essential part of a high-quality teacher preparation program, this educational foundations text will help guide you to become this type of teacher.

1.1 TEACHING AS AN INSPIRING, SATISFYING, AND IMPORTANT PROFESSION

Being a teacher is important and demanding work. "It takes a great deal of dedication to walk into school every day with enthusiasm, energy, and love, often in spite of conditions that make doing so a constant struggle. Yet some teachers do it all the time, and many remain in the classroom for years with a commitment that is nothing short of inspirational."[2]

Noted education professor Sonia Nieto observes that teachers' values, beliefs, and dispositions energize them to stay in the profession. Their love for children, desire to engage with intellectual work, hope of changing students' lives, strong belief in public education's democratic potential, and anger at public education's shortcomings all lie at the heart of what makes for excellent and caring teachers.[3] Having a sense of mission, solidarity, and empathy for students, the desire to be lifelong learners, the courage to challenge conventional thinking, improvisational abilities, and a passion for social justice motivate and keep teachers in the profession.[4] Comfort with uncertainty, endless patience, and a sense of humor also help.

And students know the difference when they have teachers who care about them and want to help them learn. When asked how they make this determination, they answer: The teacher *teaches well* (makes the class interesting, stays on task, stops to explain), and the teacher *treats them well* (is respectful, kind, and fair).[5] In these ways, a "caring teacher" models how children can become both smart and good.

Teaching well is critical, taxing, and deeply satisfying work. Many educators enjoy sharing their professional journeys about haltingly yet successfully meeting classroom challenges. Several samples illustrate how notable teachers experience their role.

Josh Parker, the 2012 Maryland State Teacher of the Year, observes that teachers who love their work can have the power to change lives.

> [T]eaching is what love looks like in practice. Teaching children well is proof of the love that we have for children, for society, and for the future of the world. Expertise, maturity, and ethics may be the branches, but the root of even these disciplines is a deep and abiding love for the profession itself.

> "Mr. Parker, can I ask you a question?" a young man in class spoke up while everyone else was quietly completing their assignment. "You really love us, don't you?" I was a bit surprised but smiled in response. "Of course I do, what makes you say that?"

> "Well, you are here almost every day, you dress up like you're going to church, and you help us when we have problems," the young man said.

> I have taught disruptive students, unruly students, perfect students, hurting students, and every other type of student in between. What touches them is not the teachers' expertise, but the approach. Treat them. Talk to them. Listen. The love and empathy in your heart for who they are is the sanctifying quality of transformative instruction.[6]

Christie Watson, a National Board-Certified teacher, who teaches sixth-grade English language arts and social studies in North Carolina, writes,

> It is February, and as usual, I love my students. I no longer feel the polite, anxious, and determined love of August, but a more genuine affection that comes from really knowing them. By this point in the year, my students and I have figured each other out. I know their interests, work habits, and personality quirks. They know how to tease me and what questions will prompt me to tell a story. We have established a level of mutual respect, and now we laugh more heartily, grin more frequently, and feel a warmth in the classroom despite the gloomy weather outside.

> I'm in a similar season in my career. Somehow the weeks have turned into semesters, which have turned into years, and I find myself a veteran teacher. The love I have for my profession is deeply rooted in the person I've become, and I find a satisfaction in being an education veteran that I couldn't have predicted in those first turbulent years in the classroom. After all, love is a flame, a madness, a battlefield—pick your metaphor—and teaching can be too.

> Full of good intentions, I blazed through my first few years in the classroom, loving my students fiercely, putting in long hours, making countless mistakes, and shedding many tears. Fortunately, with persistence and a lot of support, I was able to survive those years. Now my relationship with teaching resembles all the best long-lasting loves—rich, fulfilling, still passionate, yet less likely to hurt.

> So how do we develop a love of teaching that lasts? [Veteran educators share] many of the same strategies:

> **Be a lifelong learner**. A key to long-term success in the classroom is a willingness to try new things. Public education is ever-changing, and while change can be intimidating, it is also incredibly rejuvenating. . . .

> **Be Invested**. Seeking opportunities for teacher leadership is both gratifying and invigorating. . . . It feels good to be heard, to know that we matter, and to aid in decision-making. Feeling invested in your school and community validates your hard work and makes it easy to stay. . . .

Find your support. I would not be the teacher I am today without many individuals investing time and effort into helping me be successful. My first principal believed in me, despite my disastrous classroom management, and my first teammates helped me navigate parent conferences. . . .

Choose to love it. [A] great piece of advice I received before marriage was that love is not just a feeling; it's a decision. This idea also applies to teaching. There are always bad days, difficult months, and sometimes even entire school years that feel more draining than others. In those challenging times, it's important to step back and *decide* to love teaching anyway. . . . Try to focus on the good . . . [and] choose to bring back the fun. . . . If you're not feeling the love, odds are your students aren't either.

Don't give up. People are not attracted to education for the money, respect, or recognition. We teach because we love helping students, we love learning, and we want to make a difference.[7]

Teaching well is critical, taxing, and deeply satisfying work.

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Veteran educator Laurie Barnoski, who retired after 32 years as an English teacher, offers this love letter to the profession:

It is true that teaching is a difficult job. It can be frustrating, exhausting, intimidating, and even frightening. Students know that if they choose a teaching career, they are going into a profession that does not pay well and is not highly respected by many people. Our current fixation on testing is a threat to teachers' job security and takes away some of their autonomy and creativity in the classroom. In addition, expectations of what teachers are supposed to accomplish can be overwhelming. Why would anyone choose to teach?

Take it from someone with experience: The positive aspects far outweigh the negatives. Here are [several] reasons why I think teaching matters.

- **Teaching is a worthy goal:** Teaching is a profession where you devote your life to helping young people develop into thoughtful, intelligent, positive human beings and citizens. You

might not make a lot of money, but you will be given love, appreciation, and respect from your students. How many people get to say they have the same role in shaping the next generation and in shaping society?

- **Teaching is a skilled profession:** Though a large segment of the public thinks teaching is easy, those in the classroom know better. It tests your knowledge in many subject areas and your capacity to work with students of all abilities, backgrounds, and cultures. Your job is to develop each student's potential, and that takes skills and hard work.

- **Teaching is interesting:** Each day will be different. You will be working with many individual students and colleagues with distinct personalities and needs. Every year brings a new crop of young people to get to know. In addition, you can be creative as you plan your lessons and methods of instruction.

- **Teaching brings vitality:** Being around young people on a daily basis reminds you to not take life too seriously. They are inventive and funny. One night while I was sleeping, I heard a noise on the deck but thought it was a raccoon. The next day when I opened my front door, the front of the house was covered in paper hearts. "Mrs. Barnoski, " a note read, "you have been 'heart attacked'!"

- **Teaching provides autonomy:** Though you will have to follow mandates on state testing and other rules that you may not agree with, you can be autonomous on a daily basis. You are still the authority on how each student learns. When your classroom door closes, you're the one directing the interplay.

- **Teaching creates a legacy:** In my 30-plus years of teaching, I taught over 8,000 students. It feels great to bump into them unexpectedly and discover the impact I had on their lives. When my 103-year-old aunt, who was also an English teacher, passed away, several of her former students—some of whom were in their 70s—attended her funeral. Because of what your students have learned from you, small pieces of yourself will live on.

- **Teaching fosters meaningful relationships:** You will have the opportunity to develop lifelong relationships with many of your colleagues and students. Research has shown that to succeed in life, all children need at least one adult who cares about them. You can be that person. It is a privilege.

Teaching is an amazing profession, but it's not for everyone. It is only for those who can tackle challenges, work hard, and put in the time and effort it takes to help young people succeed.[8]

For one more look at how teaching inspires its best practitioners, Jennifer Wellborn, a middle school science teacher, writes about why she teaches:

I may be naive, but I believe that what I do day in and day out *does* make a difference. Teachers *do* change lives forever. And I teach in public school because I still believe in public school. I believe the purpose of public school, whether it delivers or not, is to give quality education to all kids who come through the doors. I want to be part of that lofty mission. The future of our country depends on the ability of public schools to do that.[9]

Even as they celebrate the complex joys of being a teacher, these veteran educators concede that the profession has its discontents. Their grievances are legitimate. Many teachers are deeply frustrated and unhappy about the profession's present condition. A 2019 *Phi Delta Kappan* poll of the public attitudes toward public schools found that half of teachers say they've seriously considered leaving the profession in recent years; and 55% say they would not want their child to follow them into the profession.[10] Inadequate salaries and benefits, high job stress, and feeling disrespected or undervalued contribute to this broad dissatisfaction. In 2019, teachers from six states went on strike for higher pay, supplies, and better working conditions. The public was on their side.[11]

Acknowledging the present difficulties, however, does not discourage many future teachers from their commitment to public service. It does not dampen their desire to pursue a worthy goal and become part of a skilled and interesting profession that can shape young lives for the better. It does not diminish their wish to build meaningful relationships with students, colleagues, and parents, often in ways that change the trajectories of students' lives. Rather, the realities of teaching actually strengthen their choice to love teaching.

These teachers, and countless others, give clear voice to the belief that teaching is an inspiring, satisfying, highly demanding, and vitally important profession. Despite its challenges, they want to become effective teachers who show children how to become both smart and good. To learn more about what motivates and cautions you about entering the teaching profession, complete the activity in the **Reflect & Engage** box, Teaching as an Important, Demanding, Satisfying Profession.

REFLECT & ENGAGE: TEACHING AS AN IMPORTANT, DEMANDING, SATISFYING PROFESSION

Teaching matters. It is an interesting, complex, exacting, and highly satisfying profession that can make profound, positive differences in children's lives.

Each student takes a blank piece of notebook paper or newsprint and divides the paper top-to-bottom and side-to-side into four sections. Label each box *A*, *B*, *C*, or *D*. Then, respond to each question that follows by drawing freehand images or using clip art or a pictogram software as your answers. You may use colored markers or pencils. When finished, discuss your image answers in pairs and then as a class:

A. What satisfactions and cautions do these excellent teachers offer future educators?

B. What motivates you to consider a teaching career?

C. What discourages you from pursuing a teaching career?

D. Describe an experience you had as an elementary or secondary school student with an exceptional teacher who meaningfully influenced who you are as a person or who stirred you to become a teacher.

1.2 PERSONAL QUALITIES OF EFFECTIVE TEACHERS

Who the teacher is as a person influences students' learning experiences.

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Just as successful educators have vivid memories about their students, the reverse is also true. Although we may not always remember specific facts learned in a particular class, most of us can easily recall volumes about the teacher's personality. Arguably, the person who fills the role of teacher is the most important factor in teaching.

Before any individual becomes a professional, he or she is first a unique person of distinct appearance, personality, interests, abilities, talents, and ways of interacting with others. A teacher's personality is one of the first characteristics that students, parents, and administrators notice. Who the teacher is as a person has a tremendous influence on the classroom climate and students' learning experiences. Even more impressive, teachers' psychological influence on students has been linked to student achievement in various studies of educational effectiveness.[12] Although many aspects of effective teaching can be learned and developed, changing an individual's personality is difficult.

Here are some of the research-based findings about effective teachers' personal qualities.[13] See if you can identify some of your own favorite teachers here:

- *Effective teachers care about their students.* They show their caring in ways that students understand, see, and feel. They put in the extra time and energy to ensure that every student succeeds. These teachers bring out the best in students by affirming and encouraging them with patience, trust, honesty, courage, listening, understanding, and knowing their students as people and as learners.

- *Effective teachers show all students (and colleagues) fairness and respect.* They establish rapport and credibility by emphasizing, modeling, and practicing evenhandedness and showing esteem. For instance, they respond to student misbehavior on an individual level—rather than by punishing the entire class. They tell students what they need to do right—and get all the facts before speaking with students about what they did wrong. And they treat students equitably and do not show favoritism.

- *Effective teachers show interest in their students both inside and outside the classroom.* When students are having difficulties, these teachers work with them—rather than scold or ignore them. Attending football games, plays, and choral and band concerts in which their students participate also shows students that their teachers genuinely care about them. It also increases students' feelings of belonging in their classrooms. At the same time, teachers maintain the appropriate professional role with students. The ability to relate in these positive ways creates a learning environment that advances student achievement.

- *Effective teachers promote enthusiasm and motivation for learning.* Teacher excitement for teaching their subject matter has been shown to increase both positive relations with students and student achievement. Effective teachers know how to inspire all students—by understanding their individual interests and, whenever possible, making connections to students' familiar and valued prior knowledge. These teachers also give students choices about what and how they will study, thus intrinsically motivating student learning. Students want to work hard and learn for teachers they think like them and who believe in their ability to learn.

- *Effective teachers have a positive attitude toward their own learning and to the teaching profession.* They have a dual commitment to student learning and to personal learning. They believe that all students can learn the school's essential curriculum—and this is more than a slogan to them. Furthermore, effective teachers see themselves as responsible, capable, and willing to deliver for their students' success. They also work collaboratively with other teachers and staff, sharing ideas and assisting to resolve difficulties.

- *Effective teachers are reflective practitioners.* They continuously and thoughtfully review their teaching practice daily, class by class. Research consistently affirms the value of reflection in developing effective teaching.[14] Self-evaluation and self-critiquing are essential learning tools. Effective teachers seek greater understanding of teaching through experience, scholarly study, professional reading, and observing master teachers. Likewise, they desire feedback to

improve their performance. As they become better, their sense of **efficacy**—their belief in their own ability to make a difference—increases. They gain confidence both in their skills and in their results. Their students and colleagues see this transformation in action.

Clearly, teaching is more than what you know and can do in the classroom. Who you are as a person greatly affects how effective you are as a teacher. To learn more about the teacher characteristics that you find to be the most—and the least—helpful to you as a student, complete the activity in the **Reflect & Engage** box, Personal Qualities of Effective Teachers.

REFLECT & ENGAGE: PERSONAL QUALITIES OF EFFECTIVE TEACHERS

Who the teacher is as a person has a tremendous influence on the classroom climate and students' learning experiences.

A. Using the descriptors in this section, portray your favorite teacher—the one who you believe to be most influential in motivating you to become a teacher.

B. Using Table 1.1, respond in the box or on separate paper in a word, cartoon, or emoji to the descriptors about your favorite teacher. What did that teacher do or say that made him or her so influential for you? What behaviors and attitudes did the teacher regularly use in class?

C. Use the descriptors—or their reverse—to describe the "worst" teacher you had in school with a word, cartoon, or emoji and complete the table's second column.

D. As a class, identify and discuss characteristics of your favorite and least favorite teachers and describe how these behaviors affected you as a student in their class.

E. Using Table 1.2, assess the degree to which you currently have developed each of these positive teacher qualities and mark the appropriate boxes with a word, cartoon, or emoji.

TABLE 1.1 ■ Characteristics of My Most Influential Teacher		
Teacher Characteristics	**Favorite Teacher**	**"Worst" Teacher**
Made difficult topics easy to understand		
Made me feel capable of learning, even when I made mistakes		
Taught with excitement for the subject and for teaching		
Made learning relevant and personally meaningful to me		
Taught in ways that made me want to learn		
Encouraged independent thought and accepted criticism		
Gave me some control and choice over my learning		
Connected new content to what I already knew		
Provided opportunities for interaction		
Gave helpful feedback in timely manner		
Taught me new ways to learn better		
Created a positive, safe emotional climate in class		
Was fair in grading and discipline		

Source: Leslie S. Kaplan and William A. Owings [Original by authors].

TABLE 1.2 ■ Personal Assessment of Positive Teacher Qualities			
	Personal Assessment: The Degree to Which I Have the Quality		
Positive Teacher Qualities	**Less Developed**	**Moderately Developed**	**Highly Developed**
1. I have personal experiences working with young people as a tutor, teacher, counselor, or mentor.			
2. I am optimistic about life and my ability to help every student learn.			
3. I have the capacity to build positive relationships with students.			
4. I have consistently high expectations for every student.			
5. I communicate clearly.			
6. I admit my mistakes and quickly correct them.			
7. I think about and reflect on my behavior so I can improve.			
8. I have a sense of humor (and others agree that I do).			
9. I dress appropriately for the teaching profession.			
10. I am organized but also flexible and spontaneous.			
11. I like to collaborate with peers, families, and the community.			
12. I am enthusiastic about teaching students from varied backgrounds.			
13. I look for a win–win resolution in conflict situations.			
14. I respond to students respectfully, even in difficult situations.			
15. I consistently express high expectations and high confidence.			
16. I treat every student fairly.			
17. I have positive conversations with students outside the classroom.			
18. I maintain a professional manner in all public settings.			

Source: Leslie S. Kaplan and William A. Owings [Original by authors].

1.3 THE MORAL PURPOSE OF EDUCATION

Teaching affects the individual, the local community, and the larger society. Accordingly, Michael Fullan, professor emeritus at the University of Toronto and an international leader in teacher education, explains that schools have a moral purpose. Schools are charged with improving their students' lives, regardless of those individuals' backgrounds, and developing citizens who can live and work

productively in increasingly dynamic and complex societies.[15] The individual teacher is the building block of this educational endeavor, linking caring and competence through professional practice. In this view, teachers' personal purpose has a social dimension: They are the agents of educational change and societal improvement.

Likewise, John Goodlad, a leader of educational renewal and a researcher on teacher education, maintains that schools have four moral imperatives: preparing students for responsible citizenship, providing essential knowledge and skills, building effective relationships, and practicing sound stewardship.[16] In this vein, he continues, "[E]ducation must be evaluated not just according to goal attainment [i.e., students' academic outcomes] but also according to the means employed."[17] The ends of education do not justify using inappropriate ways to reach them. Rather, education should prepare our children for "the kind of society we want [ourselves and them] . . . to live in."[18]

1.3a Preparing Students for Responsible Citizenship

First, a public school is the only national institution specifically assigned to prepare students to live responsibly in a democratic republic. Our federal government, state, and local communities have charged public schools as the agents of societal well-being. Children need to develop the information, skills, and habits of mind that make them informed citizens who can effectively participate in our representative government and can constructively fulfill their obligations as voters, law abiders, neighbors, and taxpayers. Through school, students acquire the knowledge and reasoning skills that allow them to become self-supporting and productive contributors to our society.

For those of us who live in the United States, democracy requires getting along with other people who hold viewpoints that may differ from our own. Students tend to live in neighborhoods with others like themselves. Schools, by contrast, gather several neighborhoods together into a larger and more diverse educational community. In schools, students develop the interpersonal skills they need to understand and appreciate the common ties they share with classmates from different families, genders, races, cultures, and economic backgrounds. Schools help both native-born individuals and immigrants, as well as people from different regions of the same state and the country, to identify and celebrate their unifying American traditions and beliefs and to build a common civic ethic. Students also get to know unfamiliar peers with different backgrounds as pleasant individuals much like themselves and learn how to show respect and appreciation for their individual traditions.

Classrooms create diverse communities.

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1.3b Providing Essential Knowledge and Skills

U.S. schools provide students access to knowledge. Schools help students develop communication skills through verbal, numerical, media, and digital fluency and learn about the Earth as a series of physical and biological systems. They help students learn the historical, political, social, economic, and cultural realities in which they live. In addition, schools provide students with instruction on how to gather, assess, evaluate, and judge information, use it to create new ways of knowing, and to express informed, well-reasoned opinions. They also ensure that no belief, attitude, or practice keeps students from getting the necessary knowledge.

1.3c Enacting Schools' Moral Purpose Through Caring Relationships

Although teaching is a professional activity, it is also an acutely personal one. Teaching entails much more than just the mechanics of delivering content. It involves caring about and interacting with individual students in a group setting and, when necessary, remotely. And when students spend more than 1,000 hours with their teacher in a typical school year, that's plenty of time to build a relationship that can either advance or limit learning.[19]

At their core, relationships are about caring. In fact, research suggests that a caring relationship with teachers can help students do better in school and act more kindly toward others.[20] A 2017 *Review of Educational Research* analysis of 46 studies found that strong teacher–student relationships were associated in both short- and long-term improvements in higher student academic engagement, attendance, grades, fewer disruptive behaviors and suspensions, and lower school dropout rates—even after controlling for individual, family, and school differences.[21] Teacher caring has been identified as essential for effective teaching and learning at all educational levels.[22] And the benefits are mutual. A study in the *European Journal of Psychology of Education* found a teacher's relationship with students to be the best predictor of how much the teacher experiences joy rather than anxiety in the classroom.[23]

Effective teachers are often described as those who develop relationships with students that are emotionally supportive, safe, and trusting; who show concern about students' emotional, intellectual, and physical well-being; and who regularly give children resources—modeled behavior, information and advice, specific experiences, and encouragement—to develop their social and academic skills.

Simply developing good relationships with students is not enough to promote student learning, however. Highly effective teachers leverage that foundation to promote students' deeper thinking and engagement. Caring teachers create and sustain a safe, considerate, and intellectually challenging environment. In this view, teachers are socializing agents who create interpersonal contexts that influence the quality and levels of student motivation and engagement with school's academic and social life. For instance, a caring teacher may notice that a certain child is struggling with peer relationships. This teacher would assess this child's needs, decide how to meet them, and then take the necessary action. What is more, students know when teachers respect and like them. They know when teachers hold high expectations for their achievement—and when they don't. And students respond accordingly—by engaging in the material or by withdrawing from it. Table 1.3 gives examples of how to build caring relationships with students.

TABLE 1.3 ■ How Teachers Show Their Care and Connectedness With Students[25]	
Principle	**Description of Caring and Connectedness in Action**
Know your students as individuals.	Use the first days of class to survey or interview students about their interests, likes, dislikes, goals, and expectations. Teachers need to know their students and let their students get to know them.
Every student is unique.	Accept that students are individuals who have different backgrounds and ways of learning. To the extent possible, teach with varied approaches, activities, and assignments to connect every student with the lesson.
Research cultural differences.	Learn the differences between teachers and students to avoid cultural misunderstandings around norms, styles, and language.

(Continued)

TABLE 1.3 ■ How Teachers Show Their Care and Connectedness With Students (Continued)	
Principle	**Description of Caring and Connectedness in Action**
Invite student input.	Listen to students and be aware and responsive to the classroom climate.
Provide a safe, supportive, and fair learning environment.	Encourage students to share their ideas and ask questions without fear of being punished or humiliated if wrong.
Give clear expectations.	Students need clarity about your expectations for classroom and school behavior and academic performance. Show how class activities will help build the necessary and required career skills later in life.
Give timely, specific, and constructive feedback.	Students need to know as early as possible how they are progressing on their class activities, assessments, and assignments and what they need to change so they may succeed in class.

Although important interpersonal and professional boundaries exist—a "relationship" with a student does not mean "friend"—good teachers combine teaching's generalizable principles and subject-specific instruction with a genuine sensitivity to their students' uniqueness and humanness as learners. Unlike their emotionally supportive relationship with parents, however, students report that their relationships with their teachers tend to be domain and classroom specific.[24]

AMERICAN EDUCATION SPOTLIGHT: NEL NODDINGS

A leader in the field of educational philosophy, Nel Noddings, the Jacks Professor Emeriti of Child Education at Stanford University, winner of numerous prizes for her teaching excellence and scholarly accomplishments (and a former public elementary and high school teacher and administrator) believes that caring relationships should be the foundation for teaching and learning.

In her view, American schools have traditionally promoted the belief that students develop character through academic skills and intellectual pursuits.[26] Knowledge of "the basics" (whether classical studies or basic reading and math) along with self-sacrifice, success, determination, ambition, and competition would enable students to build the attitudes and skills appropriate to live successfully in a capitalist society. Noddings objected to this approach. To her, schools should address human values and concerns, not merely cognitive ones.[27]

Noddings argues that contemporary teachers enact schools' moral purpose through *caring*,[28] involving physical proximity and a degree of nurturance; and our schools should produce

Courtesy of Nel Noddings

competent, considerate, loving, and lovable people.[29] As a teacher, caring involves listening to students, gaining their trust, and engaging in dialogue about their needs, working habits, interests, and talents. Teachers use this knowledge to build their lessons and plan for their individual progress.

Caring relationships also involve moral and ethical behaviors. Ethics and morals are theory and practice, respectively. This **ethical caring** is more highly abstract, less intense or intimate, than mother–child caring, also known as *natural caring*. With an ethic of caring, one acts out of affection or inclination rather than simply from duty and principle. For teachers and students, these caring relationships occur within the school and classroom settings during the teaching and learning process.

Teachers model caring for students in many ways. They consistently treat students with respect and consideration and expect them to treat other students in the same way. Teachers and students must trust and respect one another well enough to express differing viewpoints or decisions and carefully consider the reasons given that oppose their original position. Caring teachers show students how intellectual activity is useful, fun, and important. They limit lectures to the presentation of essential information and then use class time for students to interact and explore how the information addresses issues that are real and relevant to them. Teachers work with students to develop learning objectives that meet both the school's and the students' needs; they use discussion to elicit and respond thoughtfully to students' ideas; and they give students timely, specific written feedback on their work. Caring teachers assume that students are well intentioned and act from worthy motives: They try to understand and address the purposes that underlie students' sometimes annoying behaviors rather than responding quickly and punitively to the overt behavior itself. When teachers respond to students with respect for the quality person that student either is now or can become, the student feels confirmed, validated as worthy and competent.

Ideally, the students recognize and respond to teachers' caring by thoughtfully completing assigned work. The ethic of caring, therefore, is often characterized as responsibility and response. Students learn and develop this caring outlook and behaviors through their relationships with their teachers. But since caring is an unselfish act, teachers must demonstrate care for students even when it is not reciprocated, although it is more difficult.

As Nodding sees it, all children must learn to care for other human beings as well as for animals, plants, the physical and global environments, objects, instruments, and ideas—in addition to developing academic competencies. Caring teachers want to help their students grow into likable and ethical people: "persons who will support worthy institutions, live compassionately, work productively but not obsessively, care for older and younger generations, be admired, trusted, and respected."[30] For this type of maturation to happen, teachers need to know both their subjects and their students very well.

Noddings's critics include feminists (who see the one caring as naively carrying out the traditional female role in our culture while receiving little in return, perpetuating inequity, and reinforcing oppressive institutions) and those favoring more traditional (masculine) approaches to ethics (who believe the partiality given to those closest to us is inappropriate). Others view the problematic nature of building an ethical theory upon those in unequal relationships.[31]

Critics aside, Noddings believes that by furthering students' development in this way, schools produce people who can care competently for their own families and contribute effectively to their communities, both local and international. In her view, caring is the strong, resilient backbone of human life.

1.3d Practicing Good Stewardship

Goodlad affirms that schools and teachers must practice good **stewardship**.[32] A steward is a caretaker who looks out for and manages an estate's or organization's affairs. Stewardship is how we track and account for the resources we have been given, what we do with them according to our values and beliefs, and how we guarantee that they are ably used to those purposes. Stewardship requires consciously, purposefully, and intentionally aligning our goals and actions with our values.

Similarly, teaching involves more than working with students behind the classroom door or online. By virtue of their faculty membership and school district employment, teachers have ethical duties and obligations that go beyond the classroom. As good stewards, they attend to the school's mission and protect the school's reputation in the community. Similarly, teachers have an ethical obligation to protect the reputation of the teaching profession as a whole.

As stewards, teachers ensure that they and their school are committed to each student's advancement and to society's well-being. To do so, they assure the highest quality teaching and learning for all students in the school (not just those inside their own classrooms). This means that teachers must be constructive and helpful to colleagues who share the goal of making the school an increasingly effective and satisfying place and experience for everyone to learn and work. It means remaining professional in attitude and behaviors in the face of unwelcome disruptions. Stewardship also means keeping the community informed about the school's accomplishments and activities and enlisting local support to make school even better. It means practicing responsible citizenship, thinking critically, and acting deliberately in a pluralistic world—and educating students to do the same.

Contemporary education stewards also provide students with attitudes, knowledge, and skills for responsibility in a global environment. With 21st century communications, work environments, challenges, and outcomes extending across the global stage, interdependence across national borders has become necessary. Teachers preparing young people to negotiate such complexity and become "thoughtful stewards" in tomorrow's world need to ready them with more "literacies." For instance, what attitudes, knowledge, and skills will today's students need to work with international colleagues to successfully ensure that we all have clean air to breathe and water to drink? Young people need to develop scientific, cultural, and global understanding; skills and dispositions to comprehend multiple viewpoints; the capacities to work collaboratively with others to address shared concerns; and a greater commitment to act beyond narrow self-interest if they are to take on this essential role.[33]

Finally, fulfilling the demands of teacher stewardship means becoming a transformational learner. Changing the world begins with changing oneself. Teachers must be enthusiastically engaged with their own learning, continue to learn, and show students how to learn. Students are more likely to find learning a specific subject fascinating and motivating when they see that their teacher finds it fascinating as well. They may be more willing to persist in learning new knowledge and skills when they see their teachers patiently struggling to master new content and practices, too. Put simply, teachers encourage student learning by being enthusiastic learners themselves.

As stewards, teachers are committed to each student's advancement and society's well-being.

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Enacting these four moral imperatives—acculturating students, providing essential knowledge and skills, developing effective relationships with students, and providing stewardship—are more than a matter of teachers' personal preferences. Fullan and Goodlad believe teachers are morally obligated to take on these roles. Teaching is clearly more than a job or career. As teachers, we touch our entire

community and nation through the students we educate. In a similar way, **Flip Sides** asks you to consider whether teaching is an art or a science.

For the relationship between teachers and students to develop, they need to spend time together. Creating opportunities to greet and interact with students every day through welcoming them into the classroom, talking about students' interests, and providing engaging lessons are positive starting points for forging such connections. Similarly, creating smaller schools, limiting class sizes, and keeping students and teachers working together over multiple years can provide the extra time needed to develop strong teacher–student relationships. Working to create more caring schools would help both teachers and students develop more ethical selves. To think more deeply about how teachers express their moral purpose in their classrooms and schools, complete the activity in the **Reflect & Engage** box, Education's Moral Purpose.

REFLECT & ENGAGE: EDUCATION'S MORAL PURPOSES

Education has a moral purpose that affects the individual, the local community, and the larger society. Let's see what this assertion looks like enacted in actual schools.

Divide the class into four groups and assign each group one of the following questions to answer in graphic form by drawing a picture or cartoon to express their ideas (using newsprint and markers or colored pencils if available) and then explain it orally to the class:

A. Illustrate how every teacher, regardless of subject taught, can prepare students for responsible citizenship.

B. Illustrate how every teacher, regardless of subject taught, can help students attain essential knowledge and skills.

C. Illustrate how every teacher, regardless of subject taught, can enact schools' moral purpose through caring relationships.

D. Illustrate how every teacher, regardless of subject taught, can practice good stewardship. Reconvene the class and have each group explains their graphic answers. Then, discuss as a class, with examples:

1. In what ways are teachers "agents of educational change and societal improvement"?

2. To what extent do you agree or disagree with Nel Noddings's view that teachers should address human values and concerns, not merely cognitive ones? Explain your reasons.

3. Explain how a teacher's "caring" can increase student learning.

4. Explain why building caring relationships with students is *a necessary but not sufficient condition* to generate high student learning.

FLIPSIDES

Is Teaching an Art or a Science?

Is teaching an art or a science? Over the years, many have debated whether good teachers rely on native instinct and in-the-moment spontaneous behaviors to engage students in powerful learning or whether good teachers rely on a systematic, predictable set of choices based in research and experience. Read the following debate and decide where you stand on this issue.

Effective teaching is an art.	Effective teaching is a science.
● Great teachers are born, not made.	● Teaching is an applied science derived from research in human learning and behavior that can be learned.

(*Continued*)

Effective teaching is an art.	Effective teaching is a science.
• Teaching involves complex judgments that unfold during the instructional process. Teachers must deal creatively with the unexpected in the moment, often relying on tacit knowledge from prior experiences.	• Teaching has an explicit knowledge base in the social sciences that provides a basic structure that can be learned, is open to new evidence, and can guide teachers' decisions and behaviors about practice.
• Teaching requires spontaneity and intuition activated on the spot to fuel new clarifying insights and creativity.	• Teaching is a sequential, predictable, rational, step-by-step process in an identifiable cause-and-effect relationship with learning.
• Effective teaching is affective, flexible, and expressive, responding to events in the moment and communicating in ways that actively engage learners in learning.	• Effective teaching is rational and logical, observing and analyzing the environment as a means to planning and making the appropriate instructional decisions to actively engage learners in learning.
• The best research can do is tell us which strategies have a good chance of working well with students, but individual classroom teachers must determine which strategies to use with the right student at the right time.	• Intuition is functional but inarticulate knowledge that cannot travel well; it cannot be transmitted to others, it must be invented anew in each situation, and it cannot be depended on to appear in all situations.
• Teaching skills cannot all be prelearned and rehearsed. They must respond to events in the moment.	• Effective teaching behaviors can be taught, learned, and improved with conscious practice, observation, and feedback and is generalizable to all content areas.
• Teaching is holistic, considering the complex interactions among the teacher, the situation, the content, and the learner that cannot be fully understood in making any decisions and behaviors about practice.	• An effective teaching model, and teacher practice and feedback using it, can guide successful teacher behavior regardless of the content, learners' age, socioeconomic status, or ethnicity.
• Much art involves science. Artists know the nature of their materials and their effects singly or combined; they know how to use media to convey emotion and experience; and they actively critique their work to generate feedback to improve performance.	• Much science involves art. Teachers learn and apply a set of research-based principles and rules but use art in situations when rules don't work and teachers must improvise. Effective teaching can be, but is not always, an art.

Effective teaching is both an art *and* a science. The science of teaching—the knowledge base—provide the key foundation from which teachers' creativity and artistry can emerge. In short, teaching is a science; what you do with it is an art. Effective teachers need them both.

Sources: Brandt, R. (1985, February). On teaching and supervising: A conversation with Madeline Hunter. *Educational Leadership, 42*(5), 61–68; Costa, A. L. (1984). A reaction to Hunter's knowing, teaching, and supervising. In P. L. Hosford (Ed.), *Using what we know about teaching: 1984 ASCD Yearbook* (pp. 196–203). ASCD; Hunter, M. (1984). Knowing, teaching, and supervising. In P. L. Hosford (Ed.), *Using what we know about teaching: 1984 ASCD Yearbook* (pp. 169–195). ASCD; Hunter, M. (1979, October). Teaching is decision making. *Educational Leadership, 37*(1), 62–67; Hunter, M. (1985, February). What's wrong with Madeline Hunter? *Educational Leadership, 42*(5), 57–60; Lambert, L. (1985, February). Who is right—Madeline Hunter or Art Costa? *Educational Leadership, 42*(5), 68–69.

1.4 TECHNOLOGY AND EDUCATION IN A GLOBAL ENVIRONMENT

Throughout most of human history, people lived and organized their lives around boundaries structured by local geography and topography, family and kinship, community social organizations, religions, and local worldviews. This is no longer true. Today's world is rapidly changing, and so is our understanding of what it means to be "educated." At present, youth grow up linked to economic realities, social media, technologies, and cultural movements that spill over local and national borders.

Just to get a sense of how the world has changed, consider these examples: The cost of an overseas telephone call in 1927 cost $75 for 3 minutes from New York to London.[34] In 2019, this call could cost from two to five cents a minute.[35] In the 1960s and 1970s, immigrants working in London relied on the postal system and personal letter carriers to communicate with family back home in India, Malaysia, or China. They waited 2 months to receive a reply to each letter. Calling by phone was not even possible. By the late 1990s, however, their grandchildren used mobile phones that linked them instantly with their cousins in Calcutta, Singapore, or Shanghai.[36]

As discussed in considering "stewardship," our world is complex. Unlike when your parents were in preK–12 schools, you will teach in a highly interconnected, globalized world. Accordingly, "education's challenge will be to shape the cognitive skills, interpersonal sensibilities, and cultural sophistication of children and youth whose lives will be both engaged in local contexts and response to larger transnational processes."[37] Technology as a teaching and learning tool is increasingly integral to this process.

1.4a Technology, the Workplace, and Globalization

Globalization—the trend of deterritorializing skills and competencies so that people working anywhere in the world can collaborate with those working elsewhere—and technology are reshaping the American workplace. These dynamics have major implications for American education and students' eventual careers and lifestyles. Now, teachers not only have to teach students how to receive knowledge, but they also have to teach them how to transfer and apply what they know to new situations or problems.[38] At the same time, teachers themselves are learning the skills to plan, deliver, and assess engaging lessons digitally.

The U.S. economy is shedding simpler, labor-intensive manufacturing processes and moving increasingly toward more mechanized, digitized, high-value efforts that require fewer workers and a more well-educated and prepared workforce. Anything that can be digitized can be outsourced to either the smartest or the cheapest producer—or the producer that fits both descriptions. Many manufacturing jobs that traditionally provided middle-class salaries for relatively low-skilled workers have already been automated (using fewer workers) or moved offshore. The results create prosperity for some as well as substantial societal disruptions. Income disparities between wealthy and poor have increased; educated workers see greater earning opportunities, whereas the less skilled and less educated have fewer. This economy affects what students worldwide need to know and be able to do.

1.4b Competing in a Global Environment

It is almost universally recognized that the effectiveness of a country's educational system is a key factor in establishing a competitive advantage in an increasingly global economy. Education is a fundamental part of a country's economic and social development as well as its citizens' personal development. Education is a primary means to reduce social and economic inequalities. Keeping U.S. education strong and viable in a globalized world is essential to maintain the U.S. citizens' standard of living and our national security. In this context, effective teachers and effective schools are essential facets of our national well-being.

When jobs in a globalized world go to those with the best skills for the lowest wage (wherever they are) and artificial intelligence (AI) technologies can perform much routine physical and cognitive work, any serious skill gaps place many future U.S. workers at a serious disadvantage. Widespread use of automation could lead to a future of widespread unemployment and more low-wage jobs unless U.S. schools can find a way to perform apace with top school systems around the world. More and more, this new reality includes teachers.

1.4c Teaching With Technology

From texting friends on smartphones to relying on GPS (global positioning system) in your car to find the best route to unfamiliar places, technological innovation and digital devices have reshaped our lives. But generally speaking, this has been less true for teaching. Until 2020, U.S. public schools provided about only one computer for every five students and spent $3 billion annually on digital

content.[39] Then, in 2020, the coronavirus pandemic exploded, and the related school closures pushed some schools closer to providing one computer for every student, years ahead of schedule. Still, by May 2020 only 59% of teachers said their schools had at least one device for every student.[40] Perhaps this scarcity of 1:1 digital learning devices reflects the reality that until now, U.S. teachers reported that technology had not led to meaningful innovation in the way they teach.[41]

Studies affirm this unhurried adoption. A significant body of research makes clear that, even with new digital devices in their classrooms, most teachers have been slow to transform their instructional practices. Plus, limited evidence suggests that technology is improving students' learning outcomes.[42] The two factors are likely related because most teachers' lack of familiarity with how to use digital tools as a crucial part of their daily planning affects student learning.

Then, virtually overnight, teaching and learning went online. Although teachers did their best to adapt, most were not ready to teach remotely. Many schools did not have the necessary resources to switch on cue to virtual instruction—likewise for some teachers and many students. As a result, in many places learning during spring 2020 (and beyond) was hit or miss.

The COVID pandemic pushed technology-infused teaching and learning to the front burner. Suddenly, teachers discovered that digitally informed instruction was more than using Google Docs to replicate worksheets, delegating teaching algebra to Khan Academy videos day after day, or positioning the internet-linked computer as an "add-on" before the bell rings.[43] Once-reluctant classroom teachers are now hands-on, actively rethinking, redesigning, and delivering their lessons for digital platforms. No longer an accessory to instructional practice, technology-infused instruction has become central to teaching and learning. And it will be—either online or in a hybrid schedule with in-classroom teaching—for the foreseeable future.

Increasingly adept teachers will find that well-designed and enacted digitally infused instruction can strengthen and enrich learning. When used effectively, it supports **deep learning**—the conceptual skills that prepare students to "master core academic content, think critically and solve complex problems, work collaboratively, communicate effectively, and learning how to learn."[44] Technology-infused learning enables teachers to personalize and customize student education, making it possible for teachers to prompt them to explore topics of interest related to the curriculum more fully. With higher student interest and motivation to learn, teachers can guide them in how to direct and manage their own learning, gather information, think critically, differentiate reliable from unreliable sources, work alone and with others (including receiving ongoing feedback from teachers), and demonstrate coherently their content mastery as projects or other products. Similarly, teachers can infuse lessons with digital tools such as blogging platforms, portfolio tools, and video publishing resources to help students improve their writing and become digital storytellers. With internet access and regular practice, students become able to learn anywhere at any time, facilitating lifelong learning. These are skill sets that effectively prepare students to succeed in college and careers.

What is more, technology-infused instruction brings new opportunities. Subject matter is constantly changing, and digital textbooks embed links to relevant and timely materials. Online polling and other digital tools help engage all students (including those who normally resist raising their hand in class) and provides regular feedback on students' learning progress and needs, allowing teachers to adjust their coursework accordingly. Using technology-informed instruction can help build credibility with students (who are already digital natives). Additionally, technology can reduce tedious, time-consuming "housekeeping" tasks, such as recording and monitoring student attendance and performance. McKinsey & Company suggest that technology can help save teacher time—up to 2 hours a week—in administrative paperwork.[45]

To make digital learning work for all parties, today's classroom teachers need intensive and ongoing professional development on how to design, enact, and assess engaging instruction delivered digitally. Tomorrow's teachers need preservice training and/or intensive and ongoing professional development and support (ideally, with classroom coaching) once on the job to master these approaches. Both veteran and novice teachers will need many occasions to experiment with these tools and receive timely constructive feedback.

Likewise, all teachers need to learn how to build students' **digital citizenship**—the ability to participate safely, intelligently, productively, and responsibly in the computerized world. Digital citizenship

includes keeping technical devices free from malware and protecting one's self from data loss, following ethical behaviors and legal standards in the digital sphere, identifying and avoiding harmful content, and using cultural rules for online interactions.[46] Digital citizenship must be taught, learned, and applied.

Digital learning comes with pros and cons. Some argue that technology in the learning space can be distracting and even enable cheating.[47] Critics observe that whether in the classroom or at home, students who use computers or tablets during lectures tend to find it difficult to concentrate and tend to earn worse grades.[48] Students may choose to check Instagram instead of watching and listening to the teacher. Technology can foster cheating in class and on assignments, allowing students to copy and paste from another's work. Then, too, not all students have equal access to technology resources; not everyone can afford tablets, smartphones, or broadband, worsening the "opportunity" gap (although library and community resources and other creative solutions may be available). These circumstances raise equity issues. Digital-infused instruction also makes lesson planning more labor intensive for teachers. And the rise of "big data" has led to new worries about how schools can protect and secure students' sensitive information. Most believe, however, that the benefits outweigh the negatives—especially when the teacher–student relationship remains pivotal to the learning process—and teachers can learn how to use these digital tools as a learning enhancer, not a teacher alternative.

Beyond the technology concerns are the students. Learning occurs best within trusting and caring relationship. In schools, teachers and students build these ties over time, verbally and nonverbally, from person-to-person interactions. No matter how digitally proficient the teacher, this cannot replace our children's profound need for meaningful, in-person connections with teachers, peers, and others. Especially in unusual times of social upheaval with dramatically altered daily routines, children can feel anxious, angry, and fearful. These emotions may interfere with learning regardless of teachers' digital expertise. With this in mind, teachers and administrators will want to find innovative ways to address students' social and emotional needs and nurture respectful, trusting relationships within the digital or hybrid environments.

Despite our new reliance on digital platforms to conduct schooling, it remains to be seen whether these changes will be medium-term stopgaps or a transformational way to conduct teaching and learning. Effective teachers will learn to how to use technology-enabled instruction as an essential, responsibly used learning modality as a regular part of their classrooms, online or in person. No longer can it remain "just casually layered on top of an outdated, industrial-era system."[49] Chapter 12 further considers how the COVID-19 pandemic made teaching with technology integral to student learning and the challenges this brings for instructional quality, student learning, and equity.

1.5 WHAT 21ST CENTURY STUDENTS NEED TO LEARN

We do not know what the world will be like in 5 years, let alone in 60 years when today's kindergartners retire. As part of globalization, our students are facing many emerging issues, including worldwide financial crises, global pandemics and related economic harm, retreats from government spending on public services and institutions (including public schools), climate change, poverty, health issues, a growing and educated global middle class, and other environmental and social issues. Our economy is generating fewer jobs in which workers engage in repetitive, assembly line–type tasks throughout their day and producing more information-rich jobs that confront employees with novel problems that require knowledge, analysis, and teamwork. These realities oblige students to learn how to skillfully function, communicate, and create change personally, socially, economically, and politically on local, national, and global levels.

To be successful in the 21st century, our students will need more than a factory-model education based on the needs of Industrial Age employers. Through the late 19th and early 20th centuries, good preparation for factory employment meant schoolchildren "sat and listened" while teachers "stood and delivered" textbook lessons; and students changed classrooms to ringing bells. Today, companies have altered how they organize and do business. Workers have more responsibility and contribute more to productivity and innovation. Advanced economies, groundbreaking industries and firms, and high-growth jobs require more educated workers with the ability to respond flexibly and knowledgeably

to complex problems, communicate effectively, manage information, work in teams, and produce new knowledge. By 2030, workers are likely to spend more time using higher cognitive and technical skills, social and emotional skills, and less time on physical, manual, and basic cognitive skills.[50] To do this, employees are expected to be thoughtful consumers of digital content but also effective and collaborative creators of digital media. Many of these workers can reside in any country with internet connectivity.

Many agree that competencies critical for the 21st century include developing capacities in the cognitive, intrapersonal, and interpersonal domains. The *cognitive domain* includes thinking, reasoning, and related skills. The *intrapersonal domain* involves conscientiousness, self-management, and the ability to regulate one's actions and emotions to reach goals. The *interpersonal domain* concludes communicating information to others, interpreting others' messages, and responding appropriately. The available research supports the consistent, positive correlations between these factors and desirable adult outcomes, although more research is needed to determine whether the relationships are causal.[51] Table 1.4 identifies these 21st century competencies.

TABLE 1.4 ■ Skills Required to be an Effective 21st Century Employee	
Cognitive skills	● Deep understanding of core subject matter—knowing the facts and how they fit together
	● Critical thinking, logical reasoning, and complex, open-ended problem-solving—tied to content; using evidence and assessing information
	● Cognitive flexibility and adaptability—to use information and skills in new ways and to adjust oneself to new realities new roles, lifelong learning
	● Information access and analysis—to find necessary resources, critique its accuracy and value, make reasoned decisions, and take purposeful action
	● Curiosity, imagination, and creativity—thinking "outside the box" to solve novel problems
Interpersonal skills	● Collaboration—with colleagues, teams, and experts across several networks
	● Leadership—have social influence with others
	● Express empathy—understand others' needs, resolve conflicts, develop trusting relationships
Intrapersonal skills	● Communicate oral and written communications effectively—to interpret information clearly and interact competently and respectfully with others across geographic and cultural boundaries
	● Regulate one's behaviors and emotions—in order to reach a goal
	● Use initiative, entrepreneurialism, and leadership—make well-reasoned decisions and take appropriate actions
	● Think and act ethically—self-regulation, perseverance, intellectual openness; thinking short and long term.

These cognitive, interpersonal, and intrapersonal skills are not "habits of mind" or competencies that students can learn by sitting passively at their desks listening to teacher lectures within their four classroom walls. Increasingly, 21st century students will be assessed on what they can do with what they have learned rather than on what they can memorize or accumulate by seat time. Teachers' expectations for every student's learning will be high. Teachers will ensure that the curriculum is connected to students' interests, goals, experiences, talents, and the real world, made relevant rather than meaningless to students. Lessons will include occasions for students to analyze, synthesize, evaluate, and create rather than merely recognize or comprehend information or practice context-free skills. Students will be actively involved in making their learning happen and making choices about study topics and projects rather than on receiving teachers' accumulated wisdom.

Likewise, 21st century students will work collaboratively with classmates—onsite and around the world—rather than learn at their solitary desks in their classrooms. The curriculum will be

thematic and interdisciplinary, as it is in the real world, rather than artificially fragmented into separate departments. Literacy will expand from the 3Rs to multiple media that reflect the communication platforms of our globalized world. Frequently, students show their learning through performances and projects upon which they are assessed rather than relying primarily on standardized tests. In short, the concept and practice of 21st century education will need to be different from the one most college students experienced earlier in their education careers. And teachers' roles will change, from primary content deliverer to major learning facilitator. Teachers' unexpected immersion into digital teaching beginning in spring 2020 and its continuation into subsequent school years will likely advance this outcome, especially if they receive the professional support and resources they need.

Should America's teachers and best students worry? Maybe. This new reality poses a challenge to all industrialized nations. Although Americans and Western Europeans produced many 20th century innovations, we have no guarantee that we will permanently lead in technological development. After World War II, the United States had no serious economic or intellectual competition. In recognition of its dominance, the 20th century was often called the American Century. Some believe that this economic, military, and cultural preeminence "bred a sense of entitlement and cultural complacency" in the United States.[52] Achieving a prominent place in this century will not be as easy for Americans as it was in the late 20th century.

Even though education means much more than securing a well-paying job, "learning more to earning more" is still a realistic goal. Americans who want to compete successfully for decent-paying employment will need the right attitudes, knowledge, and skills to vie for the information-rich careers in new specialties that will likely become available in this country. By comparison, individuals with low-knowledge skills whose jobs can be moved elsewhere have reason to worry. As the accounting profession's "grunt work" (that is, bookkeeping, preparing payrolls) moves overseas, the job of designing and creating complex tax-sheltering strategies with quality-time discussions with clients remains anchored in the United States.

Thomas Friedman, the three-time Pulitzer Prize–winning author and *The New York Times* columnist, writes that when he was young, his parents used to tell him to finish his dinner because people in China and India would love to have his food. Now, his advice to his daughters is, "Finish your homework. People in China and India would love to have your jobs."[53]

Preparing students for citizenship, work, and lifestyle in a globalized world has clear implications for teaching and learning. Globalization is changing the nature of life from labor to knowledge, from retaining information to using it for analysis, synthesis, evaluation, and creativity. Young people will need the ability to understand, communicate, work with, and get along with people different from oneself and be ready for full participation in democratic self-government. And it is worth remembering that a high-quality education is lifelong and focuses on living an aware, productive, personally and socially responsible, happy life. To be sure, effective 21st century teachers are learning to teach very differently than they were taught.

1.6 INTASC MODEL CORE PERFORMANCE STANDARDS FOR TEACHERS

New teachers enter the profession motivated and enthused about their new role. They want to be prepared, confident, and able to meet their classroom demands and to continue to grow their expertise throughout their careers. The profession has built frameworks to support this effort.

The **Interstate Teacher Assessment and Support Consortium (InTASC)**, a program of the Council of Chief State School Officers, developed Model Core Teaching Standards for licensing teachers.[54] Updated in 2013 and aligned with other state and national standards,[55] InTASC standards define what teachers should know and be able to do to ensure that by high school graduation, every preK–12 student is ready to enter college or today's knowledge-based workforce. These professional practice standards contain a continuum of expectations for teachers, appropriate from their first days leading their own classrooms through accomplished practice (although the professional practice looks different at different stages of a teacher's career).

InTASC standards—essential knowledge, critical dispositions, and performances—are common to all teachers, regardless of academic discipline or specialty area. **Performance** refers to the teaching behaviors that can be observed and assessed in teaching practice. **Essential knowledge** notes the importance of declarative and procedural knowledge as the bedrock of effective practice. **Critical dispositions** indicate the habits of professional action and moral commitments that anchor teacher actions. Meeting these standards—including knowledge of student learning and development, curriculum and teaching, and contexts and purposes that create a set of professional understandings, abilities, and ethical commitments that all teachers share—ensures that all their students learn to high levels. They also describe the conditions needed to support their professional growth along the way.

The InTASC standards are performance-based and assessable. They permit states and schools to incorporate more innovation and diversity in their teacher education programs by looking at teacher *outcomes* rather than *inputs*, such as lists of courses taken. These standards are based on five key themes that will propel improved student learning:

1. *Personalized learning for diverse learners*: Teachers will need to know how to customize learning for children with a range of individual differences and multiple approaches to learning for each student.

2. *A stronger focus on applying knowledge and skills*: Since today's learners need both academic and global skills—including applying knowledge to problem-solving and attributes such as curiosity, creativity, innovation, communication, and interpersonal competence—to make their way in the world, teachers need cross-disciplinary skills to help students explore in multiple perspectives.

3. *Improved assessment literacy*: Teachers are expected to use data—gathered through a range of ongoing and annual formative and summative assessments—to improve instruction, understand each learner's progress, and support each learner's success.

4. *A collaborative professional culture*: Effective teaching involves collaboration—from opening classrooms to peer observation to embedded professional learning and collective inquiry—to improve practice and increase student learning.

5. *New leadership roles for teachers and administrators*: Teacher are expected to lead by advocating for each student's needs; actively investigating and considering new ideas that would improve teaching and learning and advance the profession; participating in a collaborative culture; and engaging in efforts to build a shared vision and supportive culture within a school or classroom by working together with administrators, families, and community to meet common goals.

InTASC groups the standards into four general categories to help users organize their thinking about the 10 standards:[56] the learners and learning, content, instructional practice, and professional responsibility.

1.6a Learners and Learning

Teaching begins with the learner. Teachers must understand individual differences, have high expectations for every learner, and implement appropriate, challenging learning experiences to help every learner meet high standards and reach their full potential.

Standard #1: Learner Development

"The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences."

Standard #2: Learning Differences

"The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards."

Standard #3: Learning Environments

"The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self motivation."

1.6b Content

Teachers must understand their content deeply and flexibly. They are able to draw upon it using multiple means of communication as they work with learners to access information, apply knowledge in real-world settings using cross-disciplinarity skills (e.g., critical thinking, problem-solving, creativity, communication), and address meaningful issues by connecting them to relevant local, state, national, and global issues to assure learner mastery of the content.

Standard #4: Content Knowledge

"The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make the discipline accessible and meaningful for learners to assure mastery of the content."

Standard #5: Application of Content

"The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem-solving related to authentic local and global issues."

1.6c Instructional Practice

Effective instructional practice requires that teachers understand and integrate assessment, planning, and instructional strategies in coordinated and engaging ways.

Standard #6: Assessment

"The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making."

Standard #7: Planning for Instruction

"The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context."

Standard #8: Instructional Strategies

"The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways."

1.6d Professional Responsibility

Teachers' main responsibility is creating and supporting safe, productive learning environments that result in learners achieving at the highest levels. To do this well, teachers must engage in meaningful, intensive professional learning and self-renewal by a continuous cycle of examining their practice through ongoing study, self-reflection, and collaboration.

Standard #9: Professional Learning and Ethical Practice

"The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner."

Standard #10: Leadership and Collaboration

"The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession."[57]

In deciding that these standards apply to every teacher, regardless of their career development stage, InTASC concluded that the differences between beginning and advanced practice rested more in the increasing degree of complexity and sophistication of teaching practice teachers use in applying their knowledge than in the kind of knowledge they need. Over their careers, teachers move from basic competence to more complex teaching practices. All teachers must be able to meet these 10 standards, but they will differ in the expertise with which they do.

For example, advanced practitioners have developed the ability to deal simultaneously with more of the complex facets of teaching, moving from limited instructional strategies to a broader, deeper repertoire, and adapting their performances to meet students' individual needs. To eventually become an expert practitioner, beginning teachers must have at least an awareness of the kinds of knowledge and understandings needed—as well as the resources available—to develop these skills, knowledge, dispositions, and behaviors that increase all students' learning. Having a core content of common knowledge gives teachers a professional base from which to learn, grow, and perform.[58]

The InTASC competencies accurately reflect the complex and high-stakes world of today's diverse classrooms. Many content areas have their own additional standards that teachers must meet. Learning to become an effective teacher takes time, learning experiences, quality feedback, and increasingly extended doses of practice and reflection. Becoming a teacher blends the individual's personality with the professional attitudes, knowledge, and skills shared by the profession as a whole. It is a moral and ethical commitment for a lifelong journey. To learn more about what the InTASC Standards mean and look like in practice—and consider your own experiences with them as students—complete the activity in the **Reflect & Engage** box, Understanding InTASC Expectations for Teachers.

REFLECT & ENGAGE: UNDERSTANDING INTASC EXPECTATIONS FOR TEACHERS

This is a group activity that involves role play. In an era of heightened teacher accountability for every student's learning to high levels, the InTASC Model Core Teaching Standards describe what effective teachers are expected to do—*what effective teaching and learning look like*—in professional practice that helps increase every student's learning. Let's look at some of them more closely and use role play to make them more vivid.

A. Each group of three students will consider one of the following sets of standards: Standards 1, 2, and 3 (The Learner and Learning); Standards 4 and 5 (Content); or Standards 6, 7, and 8 (Instructional Practice). Decide what these standards mean and what they *look like* in teacher and student behaviors. Identify when and how you experienced these as a student yourself. Select a vignette to present a role play of these "standards in action" that you will present to the class. In the role play, explain why they are important if every student is to have strong learning outcomes and identify how and when you expect to develop the knowledge and skills to be able to teach competently in this way.

B. After about 15 minutes, reassemble the class, and each group will present its role play of their InTASC standards. After each group performs, discuss answers as a whole group. Identify the key findings for each set of standards.

C. Discuss as a whole class: How do these expectations differ from those under which you were taught as a preK–12 student? In what ways do you find these standards to be both challenging and exciting? What do these standards tell you about the teaching profession today and your role as part of it?

KEY TAKE-AWAYS

Learning Objective 1.1 Support the view that teaching is an inspiring, satisfying, and important profession.

- Effective teachers are essential if every American child is to receive a first-class education and the life-enhancing opportunities that it brings.

- Having a sense of mission, solidarity, and empathy for students, the desire to be lifelong learners, the courage to challenge conventional thinking, comfort with uncertainty, improvisational abilities, endless patience, a sense of humor, and a passion for social justice motivate and keep teachers in the profession.

Learning Objective 1.2 Identify the personal qualities of effective teachers.

- Who the teacher is as a person has a tremendous influence on the classroom climate and students' learning experiences.

- Effective teachers are people who care about their students inside and outside the classroom, treat all students with kindness and respect, motivate student learning, have a positive attitude toward their own learning and the profession, are reflective practitioners, and continue to learn throughout their career.

Learning Objective 1.3 Critique education's moral purposes and how teachers enact these through caring.

- Schools and teaching have moral purposes—to support individual and societal well-being by helping students develop the cognitive and interpersonal skills and habits they need to thrive as people, workers, and citizens.

- Education must be evaluated not just according to goal attainment (i.e., students' academic outcomes) but also according to the means employed. Desirable ends do not justify inappropriate means to get there.

- Caring teachers maintain important interpersonal and professional boundaries with their students. Having a "relationship" with a student does not mean being a "friend."

Learning Objective 1.4 Assess technology's role in educating students in today's global environment.

- Globalization and technology are reshaping the American workplace, including schools.

- Globalization links today's youth to economic realities, social media, technology, and cultural movements that cross local and national boundaries; and teachers must help prepare students to live and work within this broader, more competitive arena.

- The 2020 COVID-19 pandemic dramatically reshaped how U.S. teachers conduct "school." Now, virtually all teachers are learning to prepare, deliver, and assess digitally infused instruction for online classes.

Learning Objective 1.5 Identify and explain the 21st century skills today's students need to learn.

- Teaching students 21st century knowledge and skills means preparing them with cognitive, interpersonal, and intrapersonal skills that enable them to respond knowledgeably and flexibly

to complex real-world problems, to think creatively, to communicate effectively, to manage information, to manage themselves, to work well in teams, and to produce new knowledge.

Learning Objective 1.6 Describe the InTASC Model Core Standards and key themes for teachers.

- InTASC standards—essential knowledge, critical dispositions, and performances—are common to all teachers, regardless of academic discipline or specialty area.

- Five key themes supporting InTASC are personalized learning for diverse learners; a stronger focus on teachers applying cross-disciplinary knowledge and skills to help students deal with multiple perspectives; teachers' improved assessment literacy and using data to improve instruction and understand each learner's progress; a collaborative professional culture in which teachers work together to improve practice and increase student learning; and new leadership roles for teachers and administrators within a supportive school climate.

TEACHER SCENARIO: IT'S YOUR TURN

Charles was different than the rest of us in the Educational Foundations class. He had just finished his master's degree in English and wanted to be an English teacher. He said he really didn't need to know "all the stuff" from this class. His plan was to teach for only about 3 or 4 years until he got his PhD so he could teach at the college level. Teaching middle or high school English was only a "short gig" to pay tuition so he could teach people who really wanted to learn—not the "little brats who don't matter and don't care about literature."

1. After reading this chapter, what would you say to Charles?

2. How does Charles's attitude about teaching in public secondary schools violate InTASC standards?

NOTES

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