

Teaching and You

If a teacher is indeed wise he does not bid you enter the house of his wisdom, but rather leads you to the threshold of your own mind.

Khalil Gibran



CHAPTER OBJECTIVES

- One of this book's themes is proactive teaching. After reading the case study in this chapter, explain how Kate Smith used proactive teaching to make cooperative learning work in her classes.

- Using reports in the literature from Farr (2011) and Ball & Forzani (2011), challenge or defend the concept of a *born teacher*.
- After reading the Howard Selekman box, define *teacher voice* and explain how e-walks can be used to improve learning for *all* students in today's diverse classrooms.

CONNECTING STATEMENTS

Agree

Disagree

Uncertain

1. Teachers' proper role with research is that of helping by collecting data for researchers to use.
2. In the absence of creating new knowledge, learning is impossible.
3. Parents should be involved more in the designing of curriculum and instruction.
4. Constructivist teachers are more likely to introduce intellectual conflicts than answers.
5. Constructivist teachers use students to help them teach.
6. Intelligence quotients (IQs) remain relatively stable throughout life.
7. Teachers' attitudes significantly affect the levels of achievement in their classrooms.

The Teaching Profession

Congratulations! Of all the professions you might have chosen, none is more important than teaching. Teaching has always been viewed as an honorable profession and is currently enjoying a high degree of popularity. Seventy percent of Americans would like their children to become teachers, the highest rating in three decades (Bushaw & McNee, 2009). New teachers can be a source of fresh ideas and energy (Ingersoll & Merrill, 2010). Whether you are just joining the profession or have been a teacher for years, this is an exciting, reforming profession that requires good teachers. The success of students in classrooms throughout the country hinges on the competency levels of their teachers. Teachers have always been known for their high level of dedication, an attitude that has brought a high level of satisfaction. Most teachers find their work very satisfying. But teaching is not for the weak hearted. The U.S. Department of Labor (see Silva, 2010) reports teaching as one of the most complex occupations. Parents and teachers realize this complexity (Weingarten, 2010). Yet, the proportion of teachers who say they are very satisfied with their profession increased from 40% in 1984 to 62% in 2008 (MetLife Survey, 2009). Being happy is important. Teachers who

report that they are happy with their lives seem to convey this enthusiasm and zest to their students (Ripley, 2010).

Clearly, teachers are the key to what happens in the classroom (Barton & Coley, 2009/2010). For this reason, the effectiveness of teachers is extremely important to students' lives (Semadeni, 2010). A vast difference in academic attainment will be determined by whether teachers see their jobs as delivering services or as educating their students. Our schools require a highly educated adult with the potential for creating meaningful learning environments that address the needs of all students.

U.S. schools are improving, and the public recognizes that progress. For the first time in several years, in a national poll, the majority of Americans gave the schools an A or a B rating (Bushaw & McNee, 2009). In 2010, the schools received the highest rating in 35 years, 49% of the public gave their local schools an A or a B. Seventy-seven percent of parents gave their oldest child's school an A or a B (Bushaw & Lopez, 2010). Teachers are the key to academic success. But this is true only when teachers use what they know, which many teachers do not always do. Richard Hersh (2009) says, "We know far more about effective education than we are using" (p. 9).

John Steinbeck was insightful enough to realize that good teachers provide students with the motivation and skills needed to excel in all other professions. When invited to speak to the Kansas State Teachers Association, Steinbeck explained the importance of teachers:

My eleven-year-old son came to me recently and, in a tone of patient suffering, asked, "How much longer do I have to go to school?"

"About fifteen years," I said.

"Oh! Lord," he said despondently. "Do I have to?"

"I'm afraid so. It's terrible and I'm not going to try to tell you it isn't. But I can tell you this—if you are very lucky, you may find a teacher and this is a wonderful thing."

"Did you find one?"

"I found three," I said. . . .

My three had these things in common—they all loved what they were doing. They did not tell—they catalyzed a burning desire to know. . . . I shall speak only of my first teacher because, in addition to other things, she was very precious. She aroused us to shouting, book waving discussions. She had the noisiest class in school and didn't even seem to know it. We could never stick to the subject, geometry or the chanted recitation of the memorized phyla.

Our speculation ranged the world. She breathed curiosity into us so that we brought in facts or truths shielded in our hands like captured fireflies. . . .

She left her signature on us, the signature of the teacher who writes on minds. I suppose that, to a large extent, I am the unsigned manuscript of that high school teacher. What deathless power lies in the hands of such a person.

I can tell my son who looks forward with horror to fifteen years of drudgery that somewhere in the dusty dark a magic may happen that will light up the years . . . if he is very lucky. . . .

I have come to believe that a great teacher is a great artist and there are as few as there are any other great artists. It might even be the greatest of the arts, since the medium is the human mind and spirit.

(National Education Association, 1959, 71)

Ironically, though he was not an educator, John Steinbeck recognized the importance of good teachers and identified several essential qualities for effective teaching. **Effective teaching** is teaching that leads all students to learn to their maximum potential. Effective teachers share certain attitudes and behaviors. This chapter examines some of these attitudes; the rest of the book is aimed at helping you put these attitudes into action.

Multiculturalism/Diversity

Multiculturalism is defined in many ways. To some, it refers to the physical presence of members of more than one culture assembled into one classroom. In this book, multiculturalism is used to refer to teacher attitudes and teaching practices that support the academic and social success of members from all cultures. A major goal set by the Carnegie Council on Adolescent Development is ensuring the academic success of all adolescents. This is the mission of all secondary and middle schools of the 21st century, and therefore, is the responsibility of all teachers. Multiculturalism recognizes that each student has his or her own heritage and has a right to that heritage. Multiculturalism further recognizes that each culture brings strengths to society. A common strength is a sense of belonging, a sense of pride in one's culture. Multiculturalism also recognizes that because of cultural and language differences, to have an equal opportunity to succeed in the classroom, teachers must make special efforts to accommodate members of various cultures.

Coupled closely with multiculturalism is the concept of **diversity**. Diversity is a set of beliefs in the worth and capability of all students and the practices teachers use to ensure that all individuals succeed. Perhaps you have heard the expression, "born teacher." But this idea is just that, and no more. It is not supported by the literature. Although certain personality traits contribute to one's ability to becoming a good teacher, "No single personality archetype correlates with dramatic teaching success" (Farr, 2011, p. 32). But the good news is that the practice of teaching effectively is learnable (Ball & Forzani, 2011). Following is a discussion of teacher attitudes that promote multiculturalism and diversity.

The Teacher's Attitude

A Positive View of Self

As John Steinbeck so clearly stated, good teachers make a difference. Effective teachers are dedicated to their jobs, and they respect and believe in themselves. This positive view of self includes a sense of efficacy, a belief in one's ability to do whatever must be done. Effective teachers believe in themselves and their ability to lead their students to succeed. Effective teachers know that they are ahead of their game; they are on the cutting edge of knowledge in their subject field and in their profession.

As shown in Figure 1.1, diversity is more than multiculturalism. Concern for cultural differences is one of several concerns of teachers who want to meet the needs of all students. Two other major groups that need teachers' help are English Language Learners (ELL) and special needs students (i.e., students with disabilities). But note that the Venn diagram in Figure 1.1 has considerable space labeled *individual needs* because all students have unique learning needs. Successful students are equally committed to meeting these needs.

A Positive View of Students

John Steinbeck said something that suggests his teacher viewed her students positively: "In addition to other things, she was very precious." This sounds like a teacher who cared intensely for the academic and personal well-being of her students (Fry & DeWitt, 2011). Effective teachers care for and respect their students. A recent national poll (Bushaw & Lopez, 2010) found that the single teacher quality that Americans consider the most important is caring. Perhaps even more important, a recent study of highly effective teachers in low-performing schools (Poplin et al., 2011) found that all of these highly effective teachers had

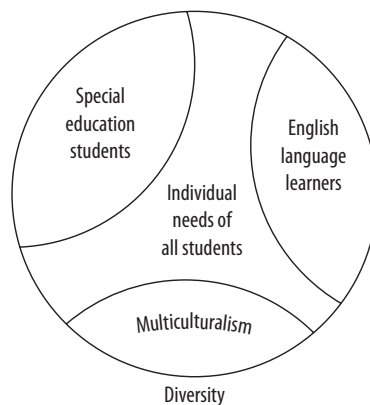


Figure 1.1 Multiculturalism versus Diversity

a high degree of respect for their students and their abilities, and they showed this respect by pointing out to individuals their strengths. They see students as capable people, rich in individual and social potential (Rose, 2010). Good teachers also see the potential in every student. Amy Azzam (2009) has noted that, “Everybody has tremendous creative capacities” (p. 23).

Teacher of the Year

I believe in treating students like fellow human beings who have feelings just like I do. They don't appreciate being embarrassed or humiliated or confronted with problems in front of their peers. But they do respond to kindness, encouragement, a friendly tease, and a smile. I try to teach manners in my classroom by being mannerly to my students.

Former Nebraska Teacher of the Year Duane Obermier (2012)

Former Arizona Teacher of the Year Rachel Moreno (see Henson & Eller, 2012, pp. 137-8) put it simply: “I touch kids’ hearts.” Effective schools research has shown that schools with consistently high academic success are characterized by a feeling of warmth toward students (Reynolds & Teddlie, 2000, p. 136). Another part of having a positive attitude toward students is having confidence in students’ abilities. Effective teachers believe in the potential of their students, and they learn how to pass this sense of confidence on to their students, letting all students know they are valued. Students respond, in kind. When students feel valued by their teachers, they are more willing to work harder at their assignments and comply with classroom rules.

John Steinbeck was right; good teachers can and do make a difference—but only if they possess the right skills and attitudes. You may be surprised when you read in Chapter 11 just how much a teacher’s attitude can affect students’ achievement. You must communicate to your students your belief that you can make a positive difference. Even the sequence of your actions on the first day of school communicates your competence. Evidence that our teachers are getting better is found in the national test scores of minority students over the past several years. The inequity gap between African-American and white students has been dropping. Differences in Scholastic Assessment Test (SAT) scores have declined, and the National Assessment of Educational Progress (NAEP) difference between African-American and white student scores has been cut in half.

Have you ever considered that students’ perspectives differ greatly from those of their teachers? Many students see their role only as the acquisition of information. Students do not think of themselves as mastering knowledge, but as working to pass a test or please a teacher. Richard Hersh (2009) says it simply, “Content remains important” (p. 52). We must teach them that knowledge is powerful, and we must help them learn to achieve, not for their parents or teachers but for themselves, and to demand the best from themselves and for themselves.

Teaching adolescents is special: It is both especially challenging and especially rewarding, and it requires special attitudes and skills. Educators recognize that adolescents require a special kind of education, one especially tailored for them.

Folk singer Burl Ives sang a song titled “Mr. In-Between,” which expressed the awkward nature of early adolescence. In that song, he used the lyric “nothing seems to fit,” and he told how, at this awkward stage, individuals are so concerned with how their peers see them that their primary goal in life is to be accepted by their peers. However, peer values and expectations often clash with home values and school values. A special type of education is required if, indeed, a school is to be successful with this age group. Teachers of this level cannot be successful working alone in a traditional, self-contained classroom, focusing on one subject at a time. On the contrary, an interdisciplinary, cooperative, team approach is essential. The partners on this team must include teachers of all subjects and other support personnel including school counselors and administrators, parents, and the students themselves. Above all, if this interdisciplinary curriculum is to be effective and, in Steinbeck’s vernacular, is to “light up the world” for these students, it must be built not of teacher words but of student activities. Pennsylvania Teacher of the Year Howard Selekman (2012) said, “My best teaching occurs when my students are lighting the way through their cooperative discussion and problem solving, and I am a learner” (p. 59). Now let’s examine other essential qualities of effective teachers. Andrew Rotherham and Daniel Willingham (2009) explain the importance of teacher collaboration. “Part of the 21st century skills movement’s plan calls for collaboration among teachers. Indeed, this is one of the plan’s greatest strengths; we waste a valuable resource when we do not give teachers time to share their expertise” (p. 19).

Tips for Teachers

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Personality Paragraph

Get to know your students on the first day.

1. Tell students to begin the first sentence in the paragraph with a description of their basic personality (e.g., unique, friendly, serious, well-rounded, difficult).
2. The sentences that follow should explain what makes them sad, angry, or upset and what hobbies, songs, foods, books, movies, or television shows they enjoy. If there is something else students wish to add, encourage it.
3. Tell them to close this paragraph with their basic philosophy of life (i.e., something to live by or believe about life, people, the world, or our existence).

Teacher as Proactive Decision Maker

Twenty-first century teachers work in complex, fast-paced, environments. Daily, literally hundreds of decisions must be made. Some of the events are spontaneous and unpredictable, but others are highly predictable. The section titled Teacher as Proactive Decision Maker will help you learn to anticipate situations that are predictable and, indeed, will go further and suggest some proactive alternatives—some actions you can take now that will help you prepare for these upcoming challenges. In many instances, these suggestions will help you shape the future.

Classroom Situation	Proactive Alternatives
1. Your new teaching assignment may be in a school that is governed by a site-based council and you may be asked to serve on it.	Make a list of questions to ask a teacher who has served on a site-based council. Practice your listening skills by refraining from speaking until the person you are talking to finishes.
2. Parents want to be involved more in their children's education.	List some meaningful ways you can let parents get involved in your classrooms. Develop a survey to learn when parents would be available to participate in school activities.
3. Parents, teachers, and administrators may put the need to cover content above all other concerns.	Pull together some research to convince others that developing understanding occurs best in problem-solving classes and in student-active environments.
4. You know that student involvement enhances learning.	List five activities your students can use to develop important concepts.

A Lifelong Love for Learning

According to Deirdra Grode (2011, pp. 75, 91), “The most important quality that an effective teacher possesses is the desire to continually evolve as an educator to meet students’ changing needs.” Effective secondary and middle-level teachers know that they must stay abreast of developments in their disciplines (Carney, 2010). They also know that they must continue to find new ways to make content exciting for their students. Former Alabama Teacher of the Year Susan Cameron (2012) gives excellent advice when she advises beginning teachers to “get out there and experience life—have an adventure, and then translate that into your teaching.”

Teachers must take responsibility for their own learning (Rothman, 2009). There is only one way to have the level of mastery in your field and in your profession that is essential for effective teaching: You must develop a lifestyle that includes reading professional journals,

conducting action research, and writing. Susan Cameron (2012) says that most of her time is spent learning, attending lectures, reading current literature, and discussing issues.

John Steinbeck said that his teacher “breathed curiosity into us so that we brought in truths shielded in our hands like captured fireflies.” Effective teachers ignite a passion in their students (Semadeni, 2011). Do such activities as attending lectures, reading current literature, conducting investigations in your own classroom, and engaging your students in writing require additional time and energy from teachers who are already physically and emotionally stretched? You bet they do; but the payoff is tremendous for both you and your students. These activities involve creativity, and because they do, they are energizing.

Teacher of the Year

I try to be a living example of the characteristics of a lifelong, successful learner. Students are hopefully inspired to always want to know more.

Former Alabama Teacher of the Year Susan Cameron (2012)

A Willingness to Self-Analyze

Effective teachers are critical of themselves. This means that they are reflective practitioners with several methods of analyzing their own behavior. These methods include journal keeping, peer coaching (asking fellow teachers to critique their teaching), and action research. Interestingly, the act of conducting action research makes teachers more open and willing to see their own shortcomings.

You Decide

But what about you? Re-read John Steinbeck’s description of his favorite teacher. Make a numbered list of this teacher’s qualities that you consider strengths. Then circle the numbers of those desirable qualities that you possess. Finally, list two or three qualities that you would like to acquire.

Teacher of the Year

I work hard at validating the “voice” of each student as an individual. We keep journals, and we write freely in them. We write at the beginning of class, in the middle of class, at the end of class. Sometimes we write with complete sentences; sometimes we don’t. When appropriate we write over an extended period of time, revising, listing, and conferencing with one another, editing, sharing, even publishing. We write what we have learned, what our opinions are, what our questions are, what our predictions are.

We write about what we know, and what we don't know. We reflect on our many experiences in our writing. We write about connections among the various subjects we are learning. These will be the moments when we discover our own voice, learning to develop and enrich it by sharing, taking risks, and experimenting with words, points of view, styles, and idiosyncrasies. These are, in fact, the defining features of the artist.

Former Pennsylvania Teacher of the Year Howard Selekman (2012)

A Willingness to Share Power

Effective teachers are more than just experts in their own right; they share their expertise and power with their students. Former Pennsylvania Teacher of the Year Howard Selekman is a lifelong learner who shares the payoff of his lifelong learning lifestyle with his class through intensive, ongoing writing projects.

As Selekman notes, he and his students reflect on their work each day. Effective teachers reflect on their behavior and on their learning. And they ensure that their students reflect on their own behavior (Hersh, 2009). Students must reflect on what they have learned in order to synthesize and articulate that knowledge.

Incidentally, it is important to know that while his students are writing, Mr. Selekman is also writing, and, like his students, he shares his writings, including his mistakes, with his class. He does not wait until he considers his writing to be a finished product to share it. This practice sends some important messages: Mistakes are to be expected but not feared. Knowledge is never complete or perfect; but it keeps getting better if we have the commitment to reflect on our behavior and continue pursuing it, and if we have the grit to share it and have it scrutinized by others.

A Proactive Attitude

Over 200 studies were used in writing this book, and each can make you a better teacher, but only if you use this research base and resist the common temptation to overestimate the value of personal experience. The value of experience is proportional to one's knowledge base, and the knowledge base is dramatically increased when teachers conduct research and use research conducted by others. In contrast, when teachers ignore research, they forfeit the opportunity to bring maximum improvement to their teaching. The result is that the ordinary classroom limits what students can do.

It has been said, but bears repeating, that teachers are the main force that determines the amount of learning that occurs in their classrooms. Because teaching is an art, the combination of ingredients needed to produce an optimal learning environment varies with the socio-culture of each school, with each group of students, and even with the same group from day to day. Teachers can improve their students' ability to learn by improving their own ability

to make decisions. Teachers whose students are consistently successful at learning are good decision makers.

Teachers must make two types of decisions: proactive and reflective. As mentioned previously, proactive decisions are needed for planning, and reflective decisions are needed to reflect on teachers' and students' behavior. For years, educators have known the important role that reflection plays in teacher improvement. A Teach for America report (see Richardson, 2010) says that highly effective teachers "reevaluate constantly what they do, looking for ways to improve their teaching and reorganizing their classroom approaches." All teachers must continually ask themselves why one method worked and another failed, and why a method that succeeded yesterday failed today. Such answers are not found in their pure form; they are not found in books, or from research, nor from using any particular method or strategy (p. 6). As Pete Hall (2011, p. 75) explains, "Teachers need to gauge and strengthen their ability to reflect on their teaching by establishing self-reflective habits in the classroom." In fact, no source can guarantee that one method will be best for any lesson. However, teachers who keep up with research findings, learn to theorize and reflect, and conduct their own classroom investigations tend to stay abreast of the most current best practices. To disregard existing knowledge is to ignore one of the most important features of human growth—learning from others.

Teacher of the Year

I can, however, empower my students and help them determine their own questions; and I can help guide them in gaining the skills necessary for solving questions. This requires a tremendous leap of faith on the teacher's part because it involves giving up a position of ultimate authority and assuming the position of facilitator of learning.

Former North Carolina Teacher of the Year Renee Coward (2012)

To remain on the cutting edge, you must combine facts, intellect, and judgment to achieve academic success in your classroom. Do not think of these recommended behaviors (reading professional materials, dialoguing with colleagues, and conducting research) as just new responsibilities that increase teachers' workloads, for they provide unprecedented opportunities to improve teaching in your school. Take the time to make a difference by mastering your discipline and the pedagogy required to enable you to work effectively with colleagues, parents, and students to help all of your students reach their maximum level of potential. This reform movement is all about power. If you learn to share your power, another surprising thing happens: your own power is increased. You can begin by sharing with your students and then extend this sharing to include your fellow teachers.

Top teachers recognize the importance of sharing power, and also, that sharing is not always easy because it requires a lot of self-confidence.

Modern technology has enabled teachers to empower their students to unprecedented levels. Teachers who use computers to full advantage are not threatened by their students' reaching this goal. The Internet puts the world in the hands of today's students: The technology is now available to teach interactively in the remotest rural or inner-city classroom anywhere on the planet. By its nature, the Internet is global and interactive. Curricula are built on activities, and the Internet has tremendous potential for letting students interact with the world at large. When students are invited to pursue fields of individual interests online, they become resourceful. Resourcefulness is itself power, and it should be a goal in all contemporary classrooms.

Proactive Exercise	
Anticipated Situation	Proactive Alternative
<ul style="list-style-type: none"> You know that: <p>Parent involvement in school matters develops a sense of ownership and commitment to improve, yet some of your future colleagues will be very reluctant to have parents involved in changing the curriculum.</p>	<ul style="list-style-type: none"> You can: <p>Collect some data showing that parent involvement increases parent support. Also, collect data showing that parent involvement correlates positively with academic achievement. Be prepared to discuss these data when the issue of parent involvement arises.</p>

Constructivism

Constructivism is a theory about how learning occurs. Put crudely, it holds that individuals make sense of new information by connecting it to previously acquired understanding. In this sense, constructivism is a set of psychological beliefs. Constructivism is also a set of philosophical beliefs that separate it from traditional, teacher-centered education.

Background

Constructivism has developed over a period of centuries. Some insist that its roots go back at least to the 1660s, when English philosopher John Locke said that at birth, the mind is a *tabula rasa*, or blank slate, and the only way to fill it is with experience. This recognition of the role that experience plays in learning opened the door for the development of *experiential* (experienced-based) education. Others argue that constructivism was born much later, in 1762, when the Swiss naturalist philosopher Rousseau (1712–1778) wrote his book *Emile* describing the type of education that he recommended. Rousseau believed that all children are good until they are corrupted

by society, and that they should be educated *naturally*, with much attention given to the students' interests. He introduced the idea of developmental stages. Although he was tutor to a little boy and his sister (Emile and Sophie), Rousseau was not a classroom teacher. Swiss educator Johann Pestalozzi (1746–1827) was a classroom teacher, and he applied some of his own ideas along with some of Rousseau's ideas. He believed that the *whole* child should be educated (physically, mentally, and emotionally), and that children should be *nourished* like plants while they *learned by doing*. Pestalozzi believed that the teacher must *respect* children and base discipline on love. He said that the school should be like a good home, and the teacher should be like a good parent.

Two centuries ago, German philosopher Johann Herbart (1782–1852) got the idea that student learning requires motivation that comes from previous experiences. This need to connect current experiences with prior experiences is a fundamental belief of constructivists today. By the nineteenth century, German educator Friedrich Froebel (1782–1827) used these ideas (learning by doing, teaching the whole child, and activities-based education) to develop the first kindergarten. Shortly after the U.S. Civil War (1861–1865), a New Hampshire native, Col. Francis Parker (1837–1902), went to Europe to study the child-centered approach to education, bringing it back to this country.

John Dewey (1859–1952) initiated this child-centered approach on a grand scale from the mid-1920s to the mid-1940s. Because this type of education differed so much from the traditional, teacher-centered approach, this period in the history of U.S. education is known as the Progressive Education Era. Meanwhile, a young Russian sociologist, Lev Vygotsky (1896–1934) was experimenting with small-group learning. Vygotsky said that children learn best when they are expected to teach others in their group and when they are asked to solve problems in a threat-free environment. He said that children will talk things through until they understand them. He called this process **negotiating meaning**. He believed that teachers should start where the children are and help them, step by step, using a process he called **scaffolding**. He believed that because each child brings a different set of past experiences, each student has a range within which he or she can develop. He called this range the **zone of proximal development**. Above all, Vygotsky thought that cooperation, not competition, was the major cause of learning. These activities led to the development of **constructivism**, the theory that individuals create their own understanding. Because this book uses scaffolding throughout, Figure 1.1 shows a scaffold designed to help students understand some of the book's major concepts.

Teacher of the Year

Students hopefully are inspired to always want to know more. In fact, the most significant evaluation of student achievement should be the extent to which they want to know more and their ability to do so.

Former Alabama Teacher of the Year Susan Cameron (2012)

Philosophical Beliefs of Constructivists

Constructivists hold a unique set of philosophical beliefs that must be understood before one can grasp the concept of constructivism. Perhaps the most basic of these beliefs is the purpose of schools. Traditionally, Americans have viewed schools primarily as places to prepare youths for a vocation. The earliest U.S. schools were created to prepare students for a particular profession, the ministry. Within 16 years after the pilgrims landed, in 1636, an institution of higher education (Harvard College) had been created to further this mission.

The number and diversity of professions rapidly expanded, and Benjamin Franklin’s Academy, forerunner to our secondary schools, which opened in 1749 in Philadelphia, quickly became the most popular type of American school because it offered such practical subjects as mathematics, engineering, and surveying. During their almost 400 years of existence, American schools have retained their focus on preparing students for a vocation.

Constructivists do not question the value of preparing youths for better adult lives, but they believe that schools should do more. For example, they believe that schooling is about the present as well as about the future, and that students’ quality of life in school is also important. They also believe that merely preparing students for work is an unacceptably narrow view of a school’s purposes. They believe that schools should do more (e.g., help students develop their creative potential and sustain their unquenchable thirst for knowledge). Constructivists also believe that schools should help students acquire as much understanding as possible, not just enough to get and keep a job (Table 1.1).

Constructivists are concerned with making school and information important to students. Constructivists’ ultimate goal is not simply learning, but enjoying learning. John Dewey (1938) said, “The most important attitude that can be formed is that of desire to go on learning” (p. 49). Constructivists argue that maximum learning can occur only when students are

Table 1.1 Constructivist versus Preconstructivist Beliefs about the Purpose of Schools and Learning

Preconstructivist Beliefs	Constructivist Beliefs
School should prepare world-class workers	School should promote creativity
School should improve the quality of adult life	School should improve students’ present and adult lives.
School should produce more knowledgeable adults	School should produce better thinkers
Breadth of content coverage is most important	Depth of understanding is most important

From Kenneth T. Henson, *Methods and Strategies for Teaching in Secondary and Middle Schools*, third edition. Published by Allyn and Bacon, Boston, MA. Copyright © 1996.

intrigued by what they study. Unlike traditional teachers, who are committed to covering the broad amount of material designated for each grade level, constructivists are committed to helping students learn less information but learn it more thoroughly. Traditional schools have sought to produce more knowledgeable students. Constructivists seek to produce more creative graduates. In the future, creativity will be the desired skill for large companies.

Psychological Beliefs of Constructivists

The teacher's role was to deliver information to students, but that role has shifted to that of concierge who finds educational resources as students need them (Boink, 2010). Today, technology is available and ready to have the prior role of teachers (the dissemination of information) shifted to it, freeing teachers to use their classroom time to help students analyze, synthesize, and assimilate material (Johnson et al., 2010). Traditionally, U.S. educators have equated learning with acquiring information. More has been viewed as better. The classic question, "What did you learn in school today?" reflects the idea that a successful education means an abundance of acquired knowledge. Constructivists, on the other hand, view learning as a process not just of acquiring information but of creating new understanding. They regard learning as a *personal* process that requires each individual to use newly acquired information to shape existing understanding, thus producing new insights.

John Dewey (1938) said, "There is no such thing as educational value in the abstract" (p. 46). In other words, unless a personal connection is made with each student, the content being studied remains worthless. Although students may memorize it, they will not understand it. Constructivists believe that there is a preferred way to learn each discipline. Once the structure is unlocked, learning becomes possible (Table 1.2). Successful teachers have learned how to help their students unlock this hidden structure.

Table 1.2 Constructivist versus Preconstructivist Beliefs about Learning

Preconstructivist Beliefs	Constructivist Beliefs
Quality of learning is reflected in the amount of knowledge accumulated	Quality of learning is characterized by the learner's level of creativity
Learning is remembering existing knowledge	Learning is creating new understanding
Learning is understanding of permanent information	Learning involves shaping information
The topic of study has little effect on the way it is learned	Success in learning any discipline requires discovering that discipline's unique structure

From Kenneth T. Henson, *Methods and Strategies for Teaching in Secondary and Middle Schools*, third edition. Published by Allyn and Bacon, Boston, MA. Copyright © 1996.

Since constructivism portrays learning as creating new insights and new understanding, knowledge itself is viewed as temporary. All knowledge is subject to error. For decades, physicists believed that light traveled in waves (wave theory), but then it was discovered that light travels in particles (corpuscular theory). In fact, under certain conditions light appears to travel in particles and under other conditions light seems to travel in waves. Physicists continue to use both theories without trying to reject either; they do not see all things as having single, correct answers. They do not worry that they must adjust their current thinking to accommodate new discoveries.

Motivation Theory Held by Constructivists

Constructivists also differ from traditionalists in what they believe motivates students to learn. For example, Americans have always valued competition, believing that competition among all students fosters learning. Constructivists accept the postulate that competition among classmates can be motivating and helpful when all students are of similar ability, but in most classes, students vary greatly in ability. Constructivists maintain that competition is destructive to students of lower ability. Teachers can derive the motivational advantage of competition without damaging students simply by grouping students of similar ability or by establishing groups of similar students and then having the groups compete (Table 1.3), or they can use the constructivist method of grouping students of unequal ability in small groups and arranging for the more advanced students to help the slower students.

Table 1.3 Constructivist versus Preconstructivist Beliefs about Motivation

Preconstructivist Beliefs	Constructivist Beliefs
Competition is the main driving force of motivation	Cooperation is a major motivating force
Information and the learner may be unrelated	Students learn information that has personal value to them
Rewards and punishments are the main motivating forces	Discovering new relationships among concepts and developing new concepts are motivating
Good teachers are good motivators	The motivation required for learning is internal; therefore good teachers arrange conditions to invite learning
Intraclass competition is important	Interclass competition is important

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Constructivists believe that intrinsic, or internal, motivation is more powerful than extrinsic, or external, motivation. They therefore believe that learning should be made personal to each student and that students should be helped to find ways that make material important to them.

Constructivist Views of the Nature and Organization of Knowledge

Constructivists believe that all curricula should be designed around major content generalizations such as concepts and interdisciplinary themes. These generalizations are the key to understanding. Instead of worrying about covering the material designated for a particular grade level, the teacher should ensure that students learn the major concepts. This does not mean the teacher “teaches” the concepts. On the contrary, students themselves should develop these concepts. Research shows that teachers are often unaware of the concepts their students hold, and that students often hold very different understandings than those their teachers think they hold (Heckman, Confer, & Hakim, 1994) (Table 1.4). Constructivist teachers use group-based problem solving.

Constructivists view all knowledge as temporary. They are less interested in students acquiring a textbook’s or teacher’s knowledge and more interested in students questioning their own understanding and discovering new understanding. All curricula should be organized so that major concepts are easily learned and new information can easily be tied to previously held information. In the current age of electronic learning, even learning, itself, is fluid (Cookson, Jr., 2010). Student interests, current events, and ease of connecting information should shape the curriculum. When students are connected to or engaged with problems that

Table 1.4 Constructivist versus Preconstructivist Beliefs about the Nature and Organization of Knowledge for Curriculum Content

Preconstructivist Beliefs	Constructivist Beliefs
Content is often assembled into seemingly unrelated bits of information	Content is built out of large understandings called content generalizations or concepts
Knowledge is permanent	Knowledge is temporary
Like any muscle, the brain needs rigorous exercise offered only by difficult-to-learn information	Information should be organized to simplify and expedite its learning
The textbook should shape the curriculum	Student interests, current events, and ease of association should shape the curriculum

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they find interesting, they develop insights that last a lifetime. Dewey (1938) referred to such meaningful, lasting, and often unplanned learning as collateral learning: “Collateral learning in the way of forming enduring attitudes, of likes and dislikes, may be and often is much more important than the spelling lesson or lesson in geography or history that is learned. For these attitudes are fundamentally what count in the future” (p. 49). Today’s students need all types of connections to gain stability in their rapidly changing and often disordered lives.

Teacher of the Year

Learning is not simply a matter of transferring information from the outside world to some sort of in-head storehouse. Instead, learners must actively construct knowledge for themselves; meaning generation is the essence of learning.

Former Minnesota Fourth Grade Teacher of the Year James Ellington (2012)

The Role of Constructivist Teachers

Constructivist teachers’ beliefs about school’s purpose and about how students learn require them to behave differently from traditional teachers. Constructivist teachers must use a personal approach, focusing attention on each student to make the curriculum interesting to that student. Constructivist teachers recognize that some, most, or even all students may not be interested in the curriculum. These teachers believe they must find ways to involve students with the curriculum. This may require the teacher to keep up with news and sports events. It may require the teacher to attend school sports events, clubs, and fairs. Such attendance has two major benefits: It provides opportunities to learn more about students’ interests, and it shows students that teachers are interested in them as people.

Constructivist teachers must identify and understand the major concepts in their subjects. They must then find ways to lead their students to discover and develop these concepts. Instead of teaching concepts to their students directly, constructivist teachers believe that they must introduce information that will conflict with students’ present understanding, creating a state of **psychological disequilibrium** (a conflict among their understandings). This approach requires teachers to resist the common urge to point out correct answers (see Table 1.5).

How badly is this constructivist curriculum needed in today’s schools? According to Gardner and Boix-Mansilla, “While students may succeed in ‘parroting back’ phrases from lectures and texts, they often falter when asked to apply their understandings to new situations” (1994, p. 14). The news that today’s students often do not clearly understand the discipline’s major concepts comes as no surprise. Perkins and Blythe (1994) say:

Teachers were all too aware that their students often did not understand the key concepts nearly as well as they might. Research affirms this perception. (p. 4)

Table 1.5 The Roles of Constructivist and Preconstructivist Teachers

Preconstructivist Teaching Roles	Constructivist Teaching Roles
The teacher:	The teacher:
Provides information	Invites students to discover information
Preidentifies important information	Invites students to identify additional content that interests them
Helps students remember information by giving clear explanations and examples	Helps students discover information
Continuously strives for clarity	Arranges for discontinuity
Keeps students quiet and on task	Encourages students to create learning; considers a reasonable amount of noise and movement necessary and acceptable
Strives to convey all information designated for the particular grade level	Strives to help students reach a deeper understanding of fewer topics
Uses threats and other punishments to motivate	Uses students' personal interests to motivate
Uses intraclass competition to motivate	Uses interclass competition to motivate

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Constructivism offers much promise because it focuses on students' learning the major concepts in each discipline and because it personalizes learning. Vygotsky said that this happens best when students are working together, cooperating, and helping each other learn. A strategy has been designed and has since proven highly effective in ensuring that small-group work results in learning the lesson's major concepts. This part or subset of constructivism is called **cooperative learning**. Now, let's examine the particulars that make this system work.

Both the philosophy and practices of constructivists parallel those of today's schools, where depth of understanding is valued more than the covering of more topics. Often, teachers team with teachers in other disciplines, and often with students, to plan units that the teachers team-teach. The resulting interdisciplinary learning units are planned around themes, as opposed to teaching unrelated facts. The open-ended nature of inquiry learning is seldom understood by today's education reformers, who wish to use common standards to measure the cognitive attainment (content learning) of students. Reformers at both state and national levels say that such standards are essential to hold schools accountable. The assumption is that the use of standards can cause schools to reach the desired levels of performance. However, this assumption is flawed. For over three decades, legislators have been dissatisfied with the level of achievement in the nation's schools. If, then, students are not meeting the current expectations, there is no logic in assuming that raising expectations will correct the problem.

Teaching and learning are complex activities that cannot be significantly improved by such quick-fix solutions as raising standards. Teachers must work together across disciplines, involving students in the planning of activities that will lead to deeper understanding. Students should be encouraged to consult with adults. While academic achievement is an indispensable goal for all schools, it must not replace or overshadow concern for the personal well-being of students who are experiencing rapid and powerful physiological changes in their lives. The No Child Left Behind law has been replaced with the recent Race to the Top program. But, while the title has been changed, the undergirding beliefs about the inability of educators to control their own profession live on. Perhaps the popular phrase, “No child left behind” should be replaced with “No child overlooked.”

For a discussion of the history of constructivism and learner-centered education, see Henson (2003).

CASE STUDY

Throughout the country, Caucasian students who have grown up outside the major cities are taking teaching positions in inner-city schools. These teachers may find themselves in a new world. Such is the case with a young, enthusiastic teacher named Kate Smith. Like most beginning teachers, Kate was eager to try out some best practices, particularly cooperative learning. After graduation, Kate had returned to her hometown and taught for four years. Now, Kate is ready to try this approach in an urban setting.

Cooperative Learning; Making It Work

Concordia University Chicago Kristi Stricker



The Background and the Teacher

Kate Smith grew up in a working-class family in rural South Dakota. After receiving her education degree from a state institution, Kate took a teaching job at the high school in her hometown. After four years of teaching in South Dakota, Kate decided she was ready for a new challenge. Kate knew that she wanted to teach in an urban environment, and she sought out and accepted a position teaching for Chicago public schools, on the south side of the city.

In South Dakota, Kate taught primarily Caucasian students who were raised in a rural environment in middle- and working-class families. The students at Kate's new school were primarily African American and were raised in an urban environment in working- and poverty-class families. Although Kate had four years of teaching experience, she quickly learned that being a successful teacher in a variety of contexts requires different skills and understandings. The following story illustrates the struggles Kate experienced as she tried to implement cooperative learning strategies. Here also are the approaches she used to improve her instruction and meet her students' needs.

The Story

Kate is an advocate of using cooperative learning in her classroom because she believes it encourages students to be engaged and think critically. Kate also values the social benefits of cooperative learning, which include promoting acceptance and enhancing the self-esteem of the students (Hornby, 2009). Consequently, during her first week at her new school in Chicago, Kate decided to get her ninth-grade World Studies students actively involved in the learning process, with a lesson that required groups of students to create a poster illustrating the five themes of Geography.

At the start of her first class period of the day, Kate asked her students to form groups of four. Kate knew that the lesson was not going to go as she planned as soon as the students began moving around the room. The noise and chaos were not what Kate expected. As Kate tried to regain control, she found it hard to get the students' attention over the screech the desks made as the students dragged them across the floor. Kate tried to get the students on track, but she found herself shouting out the instructions for the activity over the noise of the talkative students. Throughout the lesson, Kate struggled with classroom management, and she grew frustrated with her inability to get the students to focus on the assigned task. Discouraged, Kate abandoned the cooperative-learning activity for the rest of the day. Over the next two weeks, Kate found herself relying almost exclusively on direct instruction and lectures in her classroom. Kate found that when she was lecturing, she had more control over her students' behavior, but she also grew dissatisfied as she realized that her students were doing more memorizing than critical thinking.

Because Kate valued student-centered learning and believed it was important for her students to have the opportunity to learn from each other, she committed herself to trying another lesson that required her students to work in groups. However, as a result of Kate's last experience with cooperative learning, she knew that she needed to approach the next lesson in more purposeful way. So, before jumping into another activity that required the students to work together, Kate discussed her struggles with a number of veteran teachers at her new school. In her conversations, she discovered that her students who had attended Chicago public elementary and middle schools had likely not had many opportunities to work with their classmates or engage in cooperative-learning activities. Several of the veteran teachers explained that behavior concerns, large class sizes, small classrooms, and a focus on standardized testing had resulted in a situation where few teachers were planning learning activities that required group work (Salinas & Garr, 2009). As a result of these conversations, Kate realized that her ninth graders likely needed to be taught specific skills that would help them be more successful when they worked with their classmates.

Kate spent the next weekend thinking about how she could scaffold her activities in a way that would help her students develop essential skills. The first activity she planned to use was one that would be short and simple, and would encourage each student in the group to contribute. Kate believed that some of her students had not participated in the previous group activity because they were not used to sharing their thoughts and ideas with their classmates. Kate needed to find a way to ensure that every student was engaged in the next group activity she attempted. The activity she selected to accomplish this goal would be a short situational dilemma. Kate searched the Internet and finally found an activity that would require the students to make decisions about what supplies they would need if they were stranded on the moon.

Kate knew that the dilemma was not directly related to the content she was teaching, but she decided that a high-interest topic would be required to actively engage every student.

On Monday morning before the students arrived, Kate arranged the desks into groups of students that she thought would work well together. She listed the groups on the board. After the bell rang, Kate asked her students to get in the prescribed groups. Next, she handed out the assignment and instructions. Over the weekend, Kate had typed out clear instructions, hoping to alleviate her need to repeat the instructions over the noise of the students. Kate was excited to see that the students seemed interested in the activity and that most of the students seemed to be actively participating. After the students completed the activity, Kate took the opportunity to discuss the process each group had used to reach a consensus. Kate also shared with her students useful advice for coming to a consensus, highlighting the importance of key skills such as: Listen even if you don't agree, ask clarifying questions when you don't understand, and be willing to change your mind if you find the evidence compelling.

Kate built on the success of the lunar dilemma activity by planning activities that were limited in scope that would give her students more practice with working with others and expressing their own ideas. Specifically, Kate began to integrate pair-shares into her lessons. They worked like this: Kate would pose an interesting question that required the students to form an opinion. She then would ask each student to take two minutes to write a response. The next step was to have students pair up with the person sitting across from them. The students were then given two minutes to discuss their responses with their classmate. After the sharing period was complete, Kate called on several of the pairs to present their ideas to the entire class. After several days of using this strategy, Kate noticed that her students were able to pair up quickly and stay focused on the assigned task. She also realized that calling on several of the pairs to share with the whole class held each pair accountable.

Kate's scaffolding of the group-work skills was beginning to pay off. Seeing the success of the pair-share activities, Kate decided to plan a larger learning activity that required her students to work cooperatively. She had learned that she needed to carefully plan her cooperative-learning activities, if they were to be successful. To provide structure, Kate set up the groups ahead of time, carefully selecting students she thought would work well together. Kate also paid attention to creating groups that were heterogeneous in terms of race, gender, and ability (Shimazoe & Aldrich, 2010). Kate then assigned each group member a specific role. One student would be the recorder, one would be the leader, and the third the spokesperson. To make sure the students worked together on the task, Kate decided to give each group a single handout to complete. Feeling certain that it was important to hold each student accountable, she decided to give each student an individual quiz at the completion of the activity. Finally, Kate wrote a rubric for the activity that would allow individual group members to rate their own performance and the performance of the other group members.

Reflection

To Kate's delight, she found that her scaffolding paid off. Because Kate assigned the groups, her students were able to get into their groups with much less confusion, conversation, and negotiation. Kate was also thrilled that the pair-share activities helped her students develop confidence in their own ideas, and she could see that her students were more comfortable sharing their opinions with their classmates. While

some students were off task or less motivated than others, Kate was pleased with the progress her students made, and she was pleased to be able to teach in a way that encouraged her students to work together and think critically. This experience with cooperative learning taught Kate that she could not assume that her students had the skills necessary to be successful with cooperative-learning activities. As a result, Kate now consciously scaffolds her instruction to develop cooperative-learning skills before she uses group projects with her students.

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Cooperative-Learning Programs

Cooperative learning is a term used to describe a small-group strategy in which students help each other learn. In fact, the success of each member requires the success of the other group members. In this country, a large number of separate programs have been developed to capitalize on the benefits of cooperative learning. Most school faculties have always had members who are experimenters and developers. Because the individual teachers are unique and because the culture in each school is equally unique, it is easy to understand that while programs with certain common features may carry the same label, each program must be adjusted if it is, indeed, to work effectively in its school. Such is the case with cooperative learning. Some of these programs are relatively unknown outside the sites where they were developed. Other programs have been touted at professional conferences and in professional books and journals. Because many educators are experimenters, new programs are being developed. Some programs are tested only in the most informal sense; others are carefully tested (some at universities) to determine their effect on learning and social development. Some of these programs include (1) the Jigsaw method, (2) Jigsaw II, and (3) service learning.

Jigsaw

One of the more enduring examples of programs that use the cooperative-learning strategies is the Jigsaw method. This program has been used for over two decades. It gets its name from the approach used to assemble jigsaw puzzles. Imagine that a classroom full of students is given an assignment. The class is then divided into small groups, and each group is given

a subassignment. For example, a social studies class in Pittsburgh might be given the assignment to research and explain the history of this city. One group might be asked to determine why the city was developed. This group would identify the city's early products.

Another group might be asked to identify major shifts in the local products and the causes for those shifts. Another group could be asked to focus on the city's location. This group would discuss the effects of such physical characteristics as the mountains, rivers, and quality of soil (including its natural minerals). Another group might focus on conservation issues: how particular changes have affected the local wildlife, the air quality, and the water quality. Like many cities in every state, Pittsburgh has a fascinating history. Its residents are hard workers. Many are entrepreneurs. The city has remained strong because its planners have foreseen coming changes and its residents have adjusted to those changes. Its most recent major shift has been from steel manufacturing to technology. One group could investigate this shift, while another group could be assigned to study the role the schools have played in the city's development.

Each of these assignments would require visits to the library, Web searches, and perhaps even interviews with city planners and senior citizens. In-class time would be given for groups to plan, research, and write their reports. Members of each group might be sent to other groups for information needed in their report; they would then bring this back to the group for a decision to select information to include in the report. Each group would be required to plan a presentation to give to the rest of the class. Students might be encouraged to use software such as PowerPoint in delivering their presentation.

Jigsaw II

Jigsaw II is a modified version of the original Jigsaw. Like its forerunner, Jigsaw II requires members of subgroups to meet with other subgroups to gather and share information. Both approaches require groups to give a report to their classmates. (Remember that intragroup dependency, cooperation, assisted learning, and shared learning are characteristics of all cooperative-learning programs. A feature that distinguishes between Jigsaw and Jigsaw II is in the method used to introduce the assignment. Unlike Jigsaw, which requires the teacher to give the students materials needed in the investigation, in Jigsaw II, students read a common narrative and each group member is given a separate topic on which to develop expertise (Good & Brophy, 2008).

Service Learning

Although today, service learning is being used in less than 30 percent of U.S. schools, it has been around for more than 30 years and it has many positive outcomes (Furco & Root, 2010). Service-learning programs are more common in high schools than in middle schools (Kielsmeier, 2010). As mentioned earlier, because of the creative nature of many educators in levels K–graduate level, new programs designed to capitalize on the strengths of cooperative

learning are being developed every day. An example of a contemporary program is service learning. Service learning consists of experiential programs designed to promote learning and promote a sense of community citizenship. Paradoxically, each service-learning program is unique, yet all share a common philosophy in that they are intended to develop citizenship while serving as learning vehicles. Service-learning programs are strong in their ability to promote personal and social development (Furco & Root, 2010). Most service-learning programs involve the entire school student body by selecting a school-wide project and then using class, small-group, and individual assignments to achieve the school-wide goals. For example, one school service-learning project might focus on senior citizens. Visits might be made to senior citizens' housing, where some students might be assigned to read to seniors and some might tape stories told by seniors and later put these into writing.

Another school might adopt a wildlife conservation service-learning project. One such project involved building a natural garden designed to attract and serve a variety of birds. Located on the school grounds, this sanctuary was to become a living laboratory for studying the behavior of birds. After carefully researching the local birds and the migratory paths of birds that passed through the area, the students at this school designed gardens and physically built the sanctuary. Some trees were selected to provide seeds to attract local birds; other plants were selected to feed migratory birds. Once the sanctuary was built, students at all grade levels began observing and recording the visits to this garden. Other students were responsible for keeping feeders and water basins filled. Everything was recorded.

At certain intervals throughout the year, records were collected and collective reports were made. The students at this school chose to make video tapes chronicling the development and progress of the project. The tapes served several important functions, both within and outside the school. In the school, they built a sense of ownership and they celebrated the project, which, in effect, celebrated the learning community—the school itself. The tapes were also used to pull parents and other citizens into the projects.

This project was typical of service-learning projects in that it was comprehensive and lent itself to being broken down into small-group assignments, providing students excellent opportunities to cooperate with and assist their classmates in learning, a characteristic of all cooperative-learning programs. Understandably, service learning has the power to motivate learning (Furco & Root, 2010) because it engages students in reflective-thinking skills (Kielsmeir, 2010).

Teachers interested in initiating service-learning programs can ask their administrators or counselor(s) whether such a program would be feasible at their school. If so, the counselors can assist with the initiation of such a program. Local universities may have faculty members who would be interested in co-authoring a grant proposal to initiate a service-learning program. Another possibility is simply to create an unofficial service-learning program for your classroom, subject, or grade level, and invite other teachers to join you. Parents, too, should be involved.

To varying degrees, these projects are cooperative-learning programs, depending on the extent to which the teacher(s) in charge use cooperative-learning strategies to ensure academic

and social growth of all participants. The direct, hands-on, active involvement of students in all cooperative-learning programs invites participants to create learning, building on previously acquired understandings. This is constructivism at its best.

The school classroom has been described as a microcosm of society at large. It is important to realize that Vygotsky was deeply interested in the welfare of the individual learner in the classroom society. He focused not just on the learning process, but also on the student as a whole person and how that student felt about the class and about himself or herself. Vygotsky believed that maximum academic and social growth occur in a climate of respect, in which members respect each other and themselves. Teachers who can relax and enjoy their classes, take risks, and when they end up looking a bit silly, can respond by laughing at themselves to encourage students to think outside the box and share their own mistakes without fear of ridicule (Warner, 2009/2010). This is probably what Monica Martinez (2010) was suggesting when she said, “We need to banish preconceived notions of how problems are solved and help students find new ways to solve problems” (p. 73). Thus, the teacher is responsible for establishing and promoting such a climate. Remember that students respond favorably to kindness. Anxiety is a spoiler in the problem-solving process. The need to keep the climate positive can be better understood if we consider the major role that classmates play in a student’s learning. Vygotsky explained the interactive process among students as negotiation, saying that, through dialoguing, students *negotiate meaning*. **Dialogue** is a reflective-learning process in which group members seek to understand one another’s viewpoints and deeply held assumptions.

So, we see two additional qualities that play important roles in learning as viewed by constructivists. These are a *positive, risk-taking* environment and an environment that encourages students to *dialogue*. Teachers are responsible for creating and maintaining classroom climates where students feel safe and free to express their opinions on controversial topics (Graseck, 2009). Notice that both of the Jigsaw programs and the service-learning program had activities designed to engage students in dialogue about the topics under study.

Some Europeans had begun successful student-centered programs before either Vygotsky or any U.S. educators began studying this approach. When Vygotsky began his research on group learning, a similar student-centered approach had already been underway in this country. The approach was so different from the traditional, teacher-centered approach that it was labeled Progressivism. Col. Francis Parker from New Hampshire has been called the father of child-centered education in the United States. Professor John Dewey is known as the father of progressive education. Because of his progressive ideas, his inclination to test his ideas, and his longevity, perhaps John Dewey has contributed more to the shaping of U.S. education than anyone else, and especially to student-centered education. It is important to remember that although most of these practices are well over a half-century old, contemporary research studies find them unparalleled in their ability to promote academic achievement.

Preparing Students to Participate in Cooperative Learning

Success with cooperative-learning programs can be affected by the extent to which the teacher prepares students for their role in the program (Good & Brophy, 2008). Many students need help with even the common process of dialoguing. Other groups need help getting started. Western Illinois University educator Donna McCaw (2010) starts each group activity by telling students how many minutes students will have to complete their assignment. For example, one essential property of successful dialogue is the ability of all participants to suspend judgment. By learning to suspend judgment, we set aside for a time our perceptions, feelings, and impulses, and monitor our informal experiences.

Another skill that is prerequisite to successful dialoguing is empathizing. Unlike sympathy, which many know how to show freely, empathizing requires the ability to communicate to others that you actually *feel* what they are feeling. One way to teach students how to empathize is to have them repeat those parts of their classmate's comments that express feelings. "So, John, are you saying that you were really disappointed by Sam's behavior?" or "I can see that you are actually hurting when you discuss this issue."

An equally important skill needed in dialoguing and yet one that is also rather uncommon is the ability to listen to others. One way to improve this skill while simultaneously letting others know that you are, indeed, listening is to repeat what others have said: "Pat, if I recall correctly, you said that. . . ."

Frankly, many people lack this ability. The natural tendency for many, if not most, is to ignore the other party's message and use their speaking time to concentrate not on the other party's message but on mentally assembling their own message. The self-centered nature of adolescence makes acquiring dialoguing skills especially critical in middle-level classrooms. Adolescents are egocentric, and they have difficulty seeing events and intentions from another's viewpoint. The same is true for people at all ages, but it is exaggerated in early adolescents.

Listening is a behavior that can be developed through practice. Before implementing cooperative learning in your classroom, you may wish to help your students improve their ability to listen. Such improvement begins at the awareness level, because most of us would argue that we are already good listeners.

Consider playing a short (5–10 minute) audiotaped conversation on speech, or another message. Prepare 20 short-answer questions over this material. Ask everyone to respond to these questions and submit their answers anonymously. Redistribute the papers and have each student grade a classmate's paper anonymously. Average the scores.

Next, hold a discussion on listening. Ask students to share some of their own listening techniques that they have found useful in class. Blackboard can be used to facilitate the sharing of teaching methods. Marjorie Ringler (2010) asks teachers to develop brochures or fliers to summarize a topic and then post the brochures or fliers on Blackboard for their colleagues to examine and discuss. Early adolescents have increasing abilities in metacognition.

[**Metacognition** is the act of thinking about your own thinking.] They are beginning to understand learning style preferences and recognize that they have multiple intelligences

This exercise offers several advantages. First, it calls attention to the inextricable role that listening plays in dialoguing. Second, it starts students to thinking about their own listening behaviors. Third, it invites students to begin developing intentional listening strategies and to begin thinking about their own thinking.

Conducting Research

When teachers look for ways to improve their teaching, they are more likely to turn to their peers than to consult the research (Miller, Drill, & Behrstock, 2010). Yet, “Those teachers who are getting the greatest results are treating their classrooms as laboratories” (Farr, 2011, p. 32). For many years, teachers have conducted research in their classrooms. For decades, most teachers who were involved with research were performing a service to researchers (Peik, 1938). As early as 1908, however, an effort was made to involve teachers in research for another purpose—to have teachers identify educational problems and investigate possible solutions (Lowery, 1908).

By the 1950s, Corey (1953) and Shumsky (1958) had begun encouraging teachers to conduct studies in their classrooms. The 1980s literature shows some teachers performing the role of researchers (Allen, Combs, Hendricks, Nash, & Wilson, 1988; Busching & Rowls, 1987; Copenhagen, Byrd, McIntyre, & Norris, 1982; Fischer, 1988–1989; McDaniel, 1988–1989). Many teachers, however, have not conducted research (Olson, 1990), partially because preservice teacher education programs have not prepared or required them to do so. Although many teachers’ schedules are already full without research (Miller, Drill, & Behrstock, 2010), and they will probably have to use their regular planning meetings and outside time to write up the research (McLaughlin, Hall, Earle, Miller, & Wheeler, 1995), twenty-first-century teachers must consider conducting some research in the classroom.

Many more teachers say that they would conduct research were it not for their perception of research. Some see research as too theoretical (Chattin-McNichols & Loeffler, 1989), which may be a result of their concrete, applied world (Miller, Drill, & Behrstock, 2010). As busy as they are, teachers may need a little nudge, perhaps a forum to remind them to get involved with, or even to stay alert to, research findings. Consider asking your principal, department chair, or curriculum director to publish a newsletter that summarizes research articles for teachers.

Using Research to Improve Teaching

Action research offers still another advantage for today’s teachers, who must collaborate across the disciplines, Gilbert and Smith (2003) explain: “Teachers as a group haven’t thought

very much about their responsibility to improve their own practice, to constantly work with colleagues to improve the quality of teaching throughout the school” (p. 81). These authors offer action research as a tool that teachers can use to accomplish this goal. In the future, this teacher collaboration will expand outside the school and into the district (Boink, 2010).

Because the teacher is a strong determiner of achievement (Good & Brophy, 2008), teachers must develop a high level of mastery both in their teaching fields and in pedagogy. Effective teachers ask questions about everything they do (Steele, 2011). Conducting classroom and inter-classroom research is one route teachers can use to increase their level of mastery in these areas. Teachers who conduct research increase the variety of methods they use in the classroom (Dicker, 1990; Santa, 1990).

Such teacher-conducted research is often called **action research**. Action research has been referred to as “a less than rigorous attempt to establish whether one teaching technique is better than another” (Oliva, 2009, pp. 447–448). Action research is a way for teachers to gather information about what is happening in their classrooms and throughout their school, and then to take action based on their analysis of that information. Action research encourages a mix of theory and practice.

Don’t overlook qualitative research, such as story writing, case studies, and journal keeping. These methods for gathering information can become tools for penetrating the emotions and values of students. They are also forms of qualitative research. Even journal reading can become an important entrée to the use of research to improve teaching. Patricia Hoehner (2010) has teachers read an article and replicate the research in their classrooms. This makes teachers aware of the need to keep up with journals in their field and to reflect on the content in each article they read.

Benefits of Conducting Research

Research should and must play an important role in reforming our schools. Bernauer (1999) says, “Initiatives supported by research offer the most promising ways to develop school-improvement programs” (p. 69). Involvement in research also benefits individual teachers. Beyond finding answers to nagging questions and discovering more effective ways to teach, conducting research offers teachers many additional benefits. For example, research projects are mentally refreshing (Chattin-McNichols & Loeffler, 1989); teachers find them invigorating (Sucher, 1990). Perhaps the most important mental change that involvement with research brings to teachers is to make them more open and less defensive. Conducting research helps teachers realize that they do not have all the answers; they become lifelong learners (Boyer, 1990). Increased openness leads to increased confidence (Neilsen, 1990).

Teachers should compare how other teachers act. Some teachers are forever negative about everything and everyone. They will be the first to speak out against anything that leads to change. Bill Phillips (2010) suggests using electronic walks (E-walks) from classroom to

classroom to record examples of critical thinking, on-task discussion, and the number of students off task. He presents these data on a grid and lets the teachers decide the solutions. Dean Halverson (2010) says that E-walks are best when no note-taking is allowed until after the walk is over. Bennett (1993) reported on graduate students who were required to complete an action research project, saying that they entered the project feeling anxious and hostile but finished it feeling positive.

Much is heard today about the need to empower teachers. Indeed, teacher empowerment is a topic discussed earlier in this chapter. Involvement with research gives teachers a sense of mission or purpose (Marriott, 1990) and a feeling of expertness (Allan & Miller, 1990; Bennett, 1993). These are characteristics that empower teachers (Fullan, 1998). The Consortium on Chicago School Research (1993) reported that increased student learning depends on increased teacher expertise. Nelson (1999) summed it up by saying, “As in other professions, teachers should be prepared to be researchers into the practice they control” (p. 390).

Inspired teachers are reflective (Steele, 2011). Involvement in research makes teachers more objective and reflective (Cardelle-Elawar, 1993). They become more critical of their own and others’ beliefs (Neilsen, 1990). The What Works website is dedicated to helping teachers improve their teaching effectiveness: <http://www.ed.gov>.

Vignettes

Each chapter in this book has one or more short vignettes. These vignettes are based on true experiences and are included to help the reader see some of the principles introduced in each chapter at work in actual school situations. Each vignette is followed by a few questions to cause the reader to focus on the major issues and to have an opportunity to resolve the conflict. As in real life, sometimes, teachers will find that they don’t have all the information they need, and sometimes, they will find that they have to sift through some somewhat useless and unnecessary information that is superfluous to the situation. In fact, in most of the vignettes, the information given is somewhat incomplete; given more information, a better, more confident decision could be made. Although some may find this process frustrating, it realistically reflects teachers’ dilemmas. Sometimes, the author’s responses are given, telling what actions the teacher took and the results of those actions. Some of the vignettes give no followup, leaving the decisions about what actions should be taken wide open.

*Vignette One***Who Should Be Involved in Curriculum Development?**

Demelza King had arrived at Warren Middle School enthusiastic to begin her first year of teaching, enthusiastic over the privilege of joining a school with a reputation as a leader in education reform. Two weeks had passed, and Demelza was even more pleased, for she had already been involved in several reform practices. If asked, she would tell you that the best part of all was the teachers and their attitudes—always positive toward experimentation, always willing to involve all of their colleagues, and always putting the students' welfare ahead of all else. Tonight would be a special opportunity, her first teachers' meeting.

Demelza noticed that, even after a long day at school, her new colleagues were as exuberant as always. Several topics that could be described as maintenance issues were addressed before reaching the main agenda. The first topic on this agenda was increased parent involvement. More accurately, the stated topic was "Ways to Enhance Parent Involvement." Everyone seemed to believe in this goal until the discussion progressed to include curriculum improvement. A few of the teachers supported the idea of encouraging parents to become involved in curriculum decisions, but others objected strenuously, saying that parents lacked the professional expertise to make such decisions.

Demelza wondered about her own view of this concept. Before the evening was over, she would probably have an opportunity to vote on whether parents should be involved in curriculum decisions.

DISCUSSION

1. What advantages could occur from increased parent involvement in curriculum issues?
2. What risks could be involved in increased parent involvement in curriculum issues?
3. How would you vote on this issue?

Summary

At no previous time in history have teachers been held so accountable for the success of all students in their classes. As classrooms become increasingly diverse, teachers must continue to learn more about those factors that affect the success of all students. Furthermore, the indispensable role of teachers in the success of all students is clearly recognized. Teachers are becoming increasingly effective because certain attitudes and behaviors are changing. As teachers master more pedagogy, their sense of efficacy grows, enhancing both their own self-confidence in their teaching abilities and their confidence in their students.

Today, many effective secondary and middle-level teachers partner with teachers in other disciplines, with counselors and administrators, with parents, and even with students. Effective teachers must plan many activities that meet the special needs and interests of early adolescents. Effective teaching requires certain attitudes, including confidence in student abilities, a positive view of self, and a dedication to lifelong learning. To remain effective, teachers must be good consumers and conductors of research.

Constructivism is a set of theories and practices that can introduce teachers to effective attitudes and behaviors and can also make teachers aware of many commonly held attitudes and behaviors that inhibit learning. Constructivism is neither new, nor is it uniquely American. Rather, it has developed over a period of several decades, with strong contributions being made, first in Europe and later in Russia and the United States. Like other teaching and learning models, a constructivist program in one school differs from constructivist programs in other schools because, to be successful, each program must be adjusted to the climate or culture of its particular school.

A major U.S. contribution to constructivism has been the development of cooperative learning, an essential subset of constructivism. Constructivist teachers recognize that they must engage in research, however limited in size and however informal. When teachers do engage in research, they become empowered, more collaborative, less defensive (sharing their power with students, colleagues, and parents), more objective and reflective, and perhaps most important, they become lifelong learners.

Recap of Major Ideas

1. Some education reform reports of the 1980s and 1990s are too narrow in their perceived role of the school.
2. Most teachers are not effective utilizers of research.
3. The gap between mainstream and African-American standardized test scores has been narrowing in recent years.
4. Constructivists believe it better to understand in depth, even at the expense of covering fewer topics.

5. Constructivists believe that learning can occur only by tying new information to already learned knowledge.
6. Cooperative learning bases individuals' success on group success.
7. As classrooms become more diverse, teachers must continue studying factors that inhibit learning for members of various cultures.
8. Constructivist teachers personalize teaching.
9. Parent involvement increases learning.
10. Teachers support increased parent involvement in most areas—except curriculum improvement.

Activity

Interview three teachers, asking each teacher the three questions from Vignette One. Does this alter your original perspective?

Looking Ahead

This chapter has provided a theoretical framework for the remainder of this book. The next chapter will prepare you to write performance objectives, which you will need to ensure that each lesson leads your students to achieve the important concepts and skills they will need throughout their school years and beyond.

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