

THE DIFFERENTIATED CLASSROWN

Responding to the Needs of All Learners





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Preface to the Second Edition

She waited until they were all in their usual places, and then she asked, "Did I choose you, or did you choose me?" And the Souls answered, "Yes!"

E. L. Konigsburg, The View from Saturday

This book has now been a two-part journey for me. I wrote the first edition, published in 1999, shortly after leaving my public school classroom and the 20-plus-year teaching career that grounded me as an educator and as a human being. Those years were still fresh in my thinking and breathing and were full of nostalgia then. I told my new colleagues at the University of Virginia that I would always be a middle school teacher first, if for no other reason than that I would not have as long a career at the university as I had had in public school. My powers of prognostication were a bit off—as they often are. As I conclude the revision that will be the second edition of *The Differentiated Classroom*, I have been at the university longer than I was in the public school classroom.

Many things have changed over the past 15 years. Classrooms that once had few if any English language learners in their student mix now teach students from many parts of the globe. Whereas in 1999, there was precious little classroom technology available for teachers and students, now technology routinely opens classrooms to the world and to a world of ways to think about teaching and learning. Today, we know much more about the science of teaching and learning than we did then, and educators in the United States and many other countries have been through multiple national conversations focused on what and how we teach our children. And, of course, more educators are familiar with differentiated instruction. Some even consider differentiated instruction a fundamental expectation for teachers in today's classrooms.

Nonetheless, many things have remained the same for me and in schools and classrooms. At heart, I am still a middle school teacher who is grateful for

the opportunity to know and learn from the research side of my profession. And in schools, classroom practice still tilts decidedly to the one-size-fits-all end of the flexibility spectrum. Arguably, a relentless focus on raising test scores has resulted in curriculum and instruction that are, if anything, less dynamic than they were 15 years ago. There is still an untenable gap in the school experiences of students from low-income backgrounds and students of color compared to the school experiences of white students and students from more economically secure backgrounds.

Both the similarities and differences in me and in the world of education made writing the second edition of *The Differentiated Classroom* intriguing and compelling. There was more thinking to be done, more to learn, more opportunity to get it right.

While writing the first edition, I was struck by the realization that teaching is always, in part, a writing of history. I reflected on my own history as a teacher and felt connected to the teachers who came before me, especially those who worked in one-room schoolhouses. These teachers accepted all comers and said by their actions, "I'm grateful for every one of you who is here to learn. Different as you are, we can make this work." I was also transported back to late nights at the home of my first real teaching partner, and how she and I worked to make sense of multitask classrooms, which seemed to be what our very diverse students very obviously needed. I recalled the names and faces of students I taught and who unfailingly taught me more. They were high schoolers, preschoolers, and middle schoolers. They were so alike, yet so different. They needed me to be many things to them, and they taught me how to do that. I was also reminded of colleagues in Fauguier County, Virginia, who worked hard, took professional risks, thought "outside the box," found joy in classrooms, and created joy there too. It was a classy school district, even though at the time it was rural, small, and not on the radar of many people beyond its boundaries. It was also a great training ground for teaching because there was encouragement to be innovative in service of kids.

Writing the second edition of the book has involved retracing my steps on the journey of my "second life" at the University of Virginia and in schools across the United States and well beyond its borders. I am now privileged to work with teachers throughout the world and with all the varieties of students who are its future. My colleagues at the university push my thinking and

model excellence. My students remain my best teachers. They ask, "Why?" and inevitably follow with, "Why not?"

In places near and far, other teachers' questions create patterned tapestries of common understanding and shared uncertainty, which are generally seedbeds for growth. Having the opportunity to write a second edition has been a catalyst for reflecting on how my thinking has changed. It's comforting when a passage penned 15 years ago still sounds sensible to me. It's also reassuring to realize that my thinking is sharper now, which allows me to tighten and refocus parts of the original book. And it's humbling to realize that despite a steady conversation over 15 years about teaching that responds to the needs of learners, we still gravitate to the familiar and convenient and comfortable patterns that dominated our work a decade and a half—and a half-century—ago.

Teachers now, as they did in 1999, still typically ask the same questions about teaching and differentiation. "How do you grade it?" "How can we differentiate instruction if our goal is a standardized test?" "Won't my students be angry if they don't all have the same piece of work?" "How can a classroom be fair if all students don't get the same ______ (homework, version of a test, time to complete work, etc.)?"

We've grown as teachers in the last decade and a half. We are more focused and more amenable to accountability—although perhaps not focused on better things and likely held accountable for questionable measures of success. We are less naïve. Some of us are more tech-savvy. In many schools, we have more informed and more sustained dialogue about substantive aspects of our work.

And yet, we still tend to teach our students as though they were essentially alike. We still measure and label and sort them as though we've lost sight of their essential humanity. We still have pockets of brilliant pedagogy and caverns of indefensible pedagogy just miles or blocks or hallways apart. We still serve some of our students well and many poorly. We still "cover" curriculum that is handed to us more often than we generate informed invitations for students to explore the disciplines and the world.

I suppose my students—past and present—have made me an optimist. I choose to see both the evidence of positive change in our profession and the evidence of resistance to change as opportunities to continue thinking, to continue looking for words and images that can contribute to a more humane and productive way to be a teacher. The principles in this second

edition of *The Differentiated Classroom* are as compelling to me as they were the first time I put them on paper and the first time I tested them under the tutelage of my middle school students.

Another question that is as common now as it was in 1999 is, "How can I find time to differentiate instruction? It's hard, and I'm so busy already!" Time and experience have reinforced the only answer I know to give: "Build a career. Plan to be better tomorrow than today, but don't ever plan to be finished or to be 'good enough." As I once heard a teacher say to a student in her classroom, "Of course it's hard. That's why it's worth your time. And you can do hard things."

Teaching is about learning, learning is about becoming, and making a history is about taking up a profession and making a life. This book is about writing your own history as a teacher—one day at a time, one increment of growth at a time, one collegial partnership at a time. I hope you find it helpful in that quest.

Before we begin, I would like to express my gratitude to all those teachers who have shaped my life for the better. Some of them are called colleagues, some students, some editors, some authors, some friends—but they are all teachers, and I am so much stronger for their presence in my world.

Finally my profound respect goes out to the teachers everywhere who resolutely refuse to teach at the same level of proficiency and professionalism they reached today and continue to look ever forward and ever upward. You are the life-shapers among us.

C.A.T.

1

What Is a Differentiated Classroom?

So many students are physically present and psychologically absent. About 40 percent of students go through the motions, neither trying hard nor paying attention. So many cut class and are truant, so many admit to cheating to get through, so many lose interest because they cannot keep up, and so many are bored by the lack of appropriate challenge. So many do not learn that ability is not enough and effort is crucial. About half of students who drop out say their classes were not interesting, and about two-thirds say not one teacher cared about their success in learning at school. Not all is rosy with teachers, teaching, and school.

Adapted slightly from John Hattie, Visible Learning

More than a century ago in the United States and other parts of the world, the teacher in a one-room schoolhouse faced a challenging task. She had to divide her time and energy between teaching young people of varied ages who had never held a book and could not read or write along and teaching more advanced students of varying ages who had very different content needs. Today's teachers still contend with the essential challenge of the teacher in the one-room schoolhouse: how to reach out effectively to students who span the spectrum of learning readiness, personal interests, and culturally shaped ways of seeing and speaking about and experiencing the world.

Although today's teachers generally work with individual classes where students are approximately the same age, these children arguably have an array of needs greater than those of the children in the one-room schoolhouse. Thus, a teacher's question remains much the same as it was 100 years ago: "How do I divide time, resources, and myself so that I am an effective catalyst for maximizing talent in all my students?"

Consider how these teachers answer that question.

- Ms. Handley studies her students persistently; she feels she must know them well to teach them well. She sets as her measure of professional success that every student engages in and contributes to learning every day and that every student makes observable progress every day. She works hard to gain her students' trust very early in the year and to prove herself worthy of their trust thereafter. She uses formative assessment, both formal and informal, as her primary understanding of what each student needs in order to connect with the curriculum and to grow as a result of class experiences. She says that formative assessment lets her know what she needs to do to make tomorrow's lesson work best for every student.
- Mrs. Wiggins assigns students to multiple spelling lists based on pre-assessment results rather than making the assumption that all 3rd graders should work on List 3.
- Mr. Owen matches homework to student need whenever possible, trying to ensure that practice is meaningful for everyone. He invites students to be part of determining which home tasks will best help them understand and apply mathematical concepts and principles.
- Ms. Jernigan sometimes teaches math to the whole class at once. More often, she uses a series of direct instruction, practice, and application groups based on daily formative assessment information. She matches practice activities and sense-making tasks to students' varied readiness needs, and she groups students for real-world math applications based on their interests or preferred approaches to learning. In this way, she says, students learn from and contribute to the learning of a variety of peers.
- Ms. Enrico offers students two or three options when it's time for them to develop a final product or complete an authentic assessment at the conclusion of a unit. She bases the options on students' interests so they have the chance to link what they've learned with something that seems important and relevant to them as individuals. She also often offers a "Let's Make a Deal" option through which students can propose their own product formats, making certain that the learning outcomes that

students need to demonstrate remain constant across options. Students use Wikispaces Classroom to develop their projects, which allows Ms. Enrico to monitor their progress throughout the process.

- Mr. Raules encourages English language learners to do initial drafts of writing in their first language if that helps them express their ideas. He also ensures that, as often as possible, students have access to some online or print resource materials in their first languages so they can more readily understand and relate to important concepts.
- Ms. Willoughby "flips" her classroom at key instructional points when it makes sense for students to explore new content at home and practice their newly developing skills and ideas in class. She carefully monitors students' understanding with "entry cards" or other types of formative assessment and creates instructional groups when it makes sense for students to work together toward common learning goals. She moves among the groups or sits with them to coach and mentor student progress.
- Mr. Ellis works regularly with small-group instruction he designs to move students forward from their current points of knowledge, understanding, and skill. Students with whom he's not meeting at a given time work independently, in pairs or in small groups, on practice or sensemaking tasks set at appropriate challenge levels or tailored to connect current content to students' interests. Formative assessment guides his instructional planning.

All of these teachers are differentiating instruction. They may have practiced differentiation before it had a name. They are simply teachers who strive to do whatever it takes to ensure that struggling, advanced, and in-between learners; students with varied cultural heritages; and children with a broad array of background experiences all grow as much as they possibly can each day, each week, and throughout the year.

Hallmarks of Differentiated Classrooms

In differentiated classrooms, teachers begin with two critical "givens": there are content requirements—often in the form of "standards"—that will serve as destination points for their students, and there are students who will inevitably vary as learners. Thus, teachers in differentiated classrooms accept and act on the premise that they must be ready to engage students in instruction through different approaches to learning, by appealing to a range of interests,

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and by using varied rates of instruction along with varied degrees of complexity and differing support systems. In differentiated classrooms, teachers ensure that students compete against themselves as they grow and develop more than they compete against one another, always moving toward—and often beyond—designated content goals.

In other words, teachers who differentiate provide specific alternatives for individuals to learn as deeply as possible and as quickly as possible, without assuming one student's road map for learning is identical to anyone else's. These teachers believe that students should be held to high standards. They work diligently to ensure that all students work harder than they meant to; achieve more than they thought they could; and come to believe that learning involves risk, error, and personal triumph. These teachers also work to ensure that all students consistently experience the reality that success stems from hard and informed work.

Teachers in differentiated classes use time flexibly, call upon a range of instructional strategies, and become partners with their students so that both what is learned and the learning environment are shaped to support the learner and learning. They do not force-fit learners into a standard mold; these teachers are students of their students. They are diagnosticians, prescribing the best possible instruction based on both their content knowledge and their emerging understanding of students' progress in mastering critical content. These teachers are also artists who use the tools of their craft to address students' needs. They do not aspire to standardized, mass-produced lessons because they recognize that students are individuals and require a personal fit. Their goal is student learning and satisfaction in learning, not curriculum coverage.

Teachers in differentiated classrooms begin with a clear and solid sense of what constitutes powerful curriculum and engaging instruction. Then they ask what it will take to modify that curriculum and instruction so that each learner comes away with knowledge, understanding, and skills necessary to take on the next important phase of learning. Essentially, teachers in differentiated classrooms accept, embrace, and plan for the fact that learners bring to school both many commonalities and the essential differences that make them individuals.

Differentiated classrooms embody common sense. The logical flow of thought in a differentiated classroom is this: a nurturing environment encourages learning. Quality curriculum requires clear and compelling learning goals used in ways that engage students' minds and lead to understanding. Persistent formative assessment guides both teacher and students toward essential goals. Instruction works best when it's carefully aligned with content goals and fashioned to address the needs indicated by both formal and informal formative assessment. Classroom management must allow for both predictability and flexibility in order for a range of students to achieve essential goals. Although this sequence of logic is more or less common sense, nonetheless it can be difficult to achieve—as common sense often is. In part, it can be difficult to implement and plan for effectively differentiated classrooms because we see few examples of good ones. There *are* such examples, however, and they offer a productive way to start exploring differentiated instruction.

Portraits from Schools

Teachers work daily to find ways to reach out to individual learners at their varied points of readiness, interest, and preferred approaches to learning. There is no single "right way" to create an effectively differentiated classroom; teachers craft responsive learning places in ways that match their own personality and approach to teaching. Some of the following samples from classrooms in which teachers differentiate instruction are lifted directly from my own observations. Some are composites of several classrooms or extensions of conversations with teachers. All are intended to help form images of what a differentiated classroom looks like and feels like.

Think carefully about the contrasts between examples in which teachers teach with little regard to student variance and those in which teachers plan with student variance in mind. Think about particular students you teach. Which scenario is likely to be a better fit for those students? Why?

Snapshots from Two Primary Classrooms

For a part of each day in Mrs. Jasper's 1st grade class, students rotate among learning centers. Mrs. Jasper has worked hard for several years to provide a variety of learning centers related to several subject areas. All students go to all learning centers because Mrs. Jasper says they feel it's unfair if they don't all do the same thing. Students enjoy the movement and the independence the learning centers provide.

Many times, Isabel breezes through the center work. Just as frequently, Jamie is confused about how to do the work. Mrs. Jasper tries to help Jamie as often as she can, but she doesn't worry so much about Isabel because her

skills are well beyond those expected of a 1st grader, and Isabel completes all of the work quite readily and accurately. Today, all students in Mrs. Jasper's class will work in a learning center on compound words. From a list of 10 compound words, they will select and illustrate 5. Later, Mrs. Jasper will ask for volunteers to show their illustrations. She will do this until the students share illustrations for all 10 words.

Down the hall, Ms. Cunningham also uses learning centers in her 1st grade classroom. She, too, has invested considerable time in developing interesting centers on a variety of subjects. Ms. Cunningham's centers, however, draw upon some of the principles of differentiated classrooms. Sometimes all students work in a particular learning center, if it introduces an idea or skill new to everyone. More often, Ms. Cunningham assigns students to a specific learning center or to a particular task at a certain learning center, based on her continually developing sense of their individual readiness.

Today, her students will also do learning center work focused on compound words. Students' names are listed at the center, and beside each name is a sticker in one of four colors. Each student works on a task contained in the folder that matches the color of his or her sticker. For example, Sam has a red sticker next to his name. Using the materials in the red folder, Sam must decide the correct order of pairs of words to make familiar compound words. He also will make a poster that illustrates each simple word and the new compound word they form. Using materials in the blue folder, Jenna will look around the classroom and in books to find examples of compound words. She will write them out and illustrate them in a booklet. Using materials in the purple folder, Tiuana will write a poem or a story that uses compound words she generates and that make the story or poem interesting. She then can illustrate the compound words to make the story or poem interesting to look at as well as to read. In the green folder, Dillon will find a story the teacher has written. It contains correct and incorrect compound words. Dillon will be a word detective, looking for "villains" and "good guys" among the compound words. He will create a chart to list the good guys (correct compound words) and the villains (incorrect compound words) in the story, ultimately correcting the "villains" in the story.

Tomorrow, during circle time, all students may share what they did with their compound words. As students listen, they are encouraged to say the thing they think is best about each presenter's work, based on a checklist of learning goals posted for the assignment. Ms. Cunningham may also spotlight a few students who are sometimes reticent to speak in front of the group, noting something she appreciated about their work and asking them a question that should elicit at least a brief response.

Examples from Two Elementary Classrooms

In 5th grade, students at Sullins Elementary work with the concept of "famous people" to make connections between social studies and language arts. All students are expected to hone and apply research skills, write with a logical flow of ideas, and share with an audience what they understand about the famous people they are studying.

Mr. Elliott asks all his students to select and read a biography of a famous person from the literature or history they have studied. Students then use books from the school library and Internet resources to find out more about the person they have chosen. Each student writes a report about a famous person, describing the person's culture, childhood, education, challenges, and contributions to the world. Students are encouraged to use both original and "found" illustrations in their reports. Mr. Elliott gives the whole class a coaching rubric focused on use of research resources, organization, and quality of language.

In her 5th grade class, Mrs. May gives her students interest inventories to help her identify areas in which they may have a special talent or fascination, such as sports, art, medicine, the outdoors, writing, or helping others. Ultimately, each student selects an area of special interest or curiosity to be his or her focus in an upcoming unit on characteristics of famous people.

Mrs. May's class discusses the fact that in all areas of human endeavor, famous people from many cultures have shaped our understanding and practice in all sorts of fields. Mrs. May reads aloud biographical sketches of a statesman, a musician, an astronaut, a community organizer, a scientist, and an artist. The people she spotlights are both male and female and represent multiple ethnic or cultural groups. Together, students and teacher describe traits and principles related to these famous people.

For example, famous people often are creative, they take risks to make advances in their fields, they tend to be rejected before they are admired, they sometimes fail and sometimes succeed, and they are persistent. Students test these principles as they discuss historic figures, authors, and people in the news today. In the end, students conclude that people can be famous "for the right reasons" or "for the wrong reasons." They decide to research people who became famous by having a positive impact on the world.

The school media specialist helps each student to generate lists of "productive" famous people in that student's particular categories of interest. She also helps them learn how to locate a variety of resources that can help them research famous individuals from varied cultures and time periods (including brainstorming possible interview sources). She talks with them about the importance of selecting research materials they can read and understand clearly, and she offers to help them look for alternatives for materials that seem too easy or too hard for them.

Mrs. May and her students talk about how to take notes and try various ways to take notes during their research. They also consider different methods of organizing their information, such as webs, outlines, storyboards, and matrices, and discuss the approaches that seem to work well for different students in the class. They talk about all the ways they can express what they learn: through essays, historical fiction, monologues, or character sketches. Mrs. May provides students with a rubric that guides them on the content, research, planning, and traits of effective narrative writing. Students also work with Mrs. May individually to set their own personal goals for understandings, working processes, and final products.

As the assignment continues, Mrs. May works with individuals and small groups to assess their understanding and progress and to provide personal coaching. Students also assess each other's work according to the rubrics and individual goals. They ensure that each report shows someone who has made a positive contribution to the world. In the end, the whole class completes a mural in the hallway outside their room that includes the principles related to fame in the shape of puzzle pieces. On each puzzle piece, students write or illustrate examples of the principle from their famous person's life. They then add ways in which they believe the principles are or will be important in their own lives.

Comparisons from the Middle Grades

In Ms. Cornell's science class, students work in a specific cycle: read the textbook chapter, answer questions at the end of the chapter, discuss what they have read, complete a lab, and take a quiz. Students do the labs and complete their reports in groups of four. Sometimes Ms. Cornell assigns students to a lab group as a way of minimizing behavior problems; often, students select their own lab groups. They read the text and answer the questions individually. Ms. Cornell typically conducts two or three whole-class

discussions during a chapter. The class works with unit reviews before each chapter test. Students enter the science fair in the spring, with a project based on a topic studied in the fall or winter.

Mrs. Santos often assigns students in her science class to "reading squads" when they work with text or online materials; students of similar reading levels usually work together. Mrs. Santos varies graphic organizers and learning-log prompts according to the amount of structure and concreteness the various groups need to grasp essential ideas from the book chapter, and she provides Internet resources at varied levels of sophistication based on student reading proficiency. Varied reading routines allow students to read aloud with peers or to read silently. The students complete graphic organizers together and respond to writing prompts or blog entries individually. As students work, Mrs. Santos moves among groups or meets with individual students. Sometimes she reads key passages to students or asks them to read to her. She always probes for deeper understanding and helps students to clarify their thinking.

Sometimes Mrs. Santos asks students to complete labs, watch videos, explore models or diagrams online, or work with supplementary materials before they read the chapter so they have a clear sense of the unit's guiding principles to support their later work with text that is complex and abstract. Sometimes they read the text for a while, do a lab or view a demonstration, and go back to the text. Sometimes labs and supplementary materials follow text exploration. She may vary the order of interaction with materials for small groups of students based on their interests or facility with abstract ideas. Frequently, she has two versions of a lab going simultaneously: one that includes scaffolding for students who need concrete experiences to understand essential principles, and one for students who already grasp the important principles and can deal with them in complex and uncertain contexts.

Multiple times in the course of a unit, Mrs. Santos uses formative assessment that aligns tightly with the unit's essential learning outcomes. Thus, she is always aware of which students need additional instruction with key knowledge, understandings, and skills; which students need more advanced applications early in the unit; and who may be having difficulty transferring ideas or skills to new contexts. Students typically have a choice of formats for key performance assessments, with required learning outcomes constant across formats. When students complete summative science projects, a single rubric provides criteria for success that apply across options:

- Work alone or with peers to investigate and address a problem in the community that relates to the topic you are studying.
- Work in a mentorship role with a person or group in the community using the current topic to address a local problem.
- Study scientists past and present who have positively influenced the practice of science in the topic you have studied.
- Write a science fiction story based on the topic you have studied, using accurate science in the context of fiction writing.
- Use classroom cameras to create a narrated photo essay that would help a younger student understand how some facet of the topic you have studied works in the world.
- Propose another option and work with Mrs. Santos to shape a project that demonstrates understanding and skill in science.

In Mrs. O'Reilly's 8th grade English class, students read the same novels and have whole-class discussions on them. Students complete journal entries on their readings. Typically, Mrs. O'Reilly assigns a portion of the novel to read for homework each night, accompanied by a summarization activity or set of follow-up questions to answer.

In Mr. Wilkerson's 8th grade English class, students often read novels that have a common theme, such as courage or conflict resolution. Students select from a group of four or five novels, and Mr. Wilkerson provides classroom sets of the books. He also makes sure the novels span a considerable reading range, tap into several interests, and reflect an array of cultures.

Mr. Wilkerson's students meet frequently in literature circles, where they discuss their ideas with others who are reading the same novel. Although the various literature circles reflect different degrees of reading proficiency, students in each group take turns serving in one of five leadership roles: discussion director, graphic illustrator, historical investigator, literary luminary, and vocabulary enricher. There are printed guides for each role to help students fulfill their responsibilities. Mr. Wilkerson also varies journal prompts and blog entries; sometimes he assigns different prompts or entries to different students, and sometimes he encourages students to select a prompt that interests them. There also are many opportunities for whole-class discussion on the theme that all the novels share, allowing all students to contribute to an understanding of how the theme "plays out" in the book they are reading and in life.

Samples from High School

In Spanish I, Mrs. Horton's students nearly always complete the same language pattern drills, work on the same oral exercises, read the same translation and culture-related passages, and take the same quizzes. They often work individually on their in-class assignments but sometimes practice in pairs or work with small groups to complete a task.

In French I, Mr. Adams's students often work with written exercises at differing levels of complexity and with different amounts of teacher support. Their oral exercises focus on the same basic structures but require different levels of sophistication with the language. Sometimes students can "opt out" of review sessions to create their own French dialogue, read a French-language magazine, or correspond with a French-speaking e-pal. Students often work in teacher-assigned, mixed-readiness pairs to prepare for what Mr. Adams calls "fundamentals guizzes." Students who wish to do so can, from time to time, select a partner to prepare for a "challenge quiz." Success on a challenge quiz nets students homework passes they can use to be excused from homework assignments when their work on the quiz indicates they have mastered the material. Mr. Adams's students self-assess their performance on formative tasks and set personal goals for increased language fluency and proficiency; they also select homework assignments that will best help them achieve those goals. In addition, each student "adopts" a country or region of a country in which French is spoken. During the year, students explore various cultural, social, linguistic, and geographical concepts in "their" country, and they work in groups to compare and contrast French influences across contexts.

In Mr. Matheson's Algebra II class, students typically complete the same homework, check the homework assignments as a whole class, work independently on the same in-class drills, and take the same tests.

In her Algebra II class, Mrs. Wang helps students identify key concepts, principles or big ideas, and skills in a given chapter. After various formative and summative assessments, students are encouraged to look at their own assessment results and select homework assignments and in-class mini-workshops that will help them clarify areas of confusion.

Toward the end of a chapter, Mrs. Wang gives students different "challenge problems," which they can tackle alone or with a classmate. Each student's problem is designed to be a mental reach; Mrs. Wang encourages students to discuss multiple ways of solving the problem and to articulate their thinking as they work through the problem. On end-of-chapter tests, students find

challenge problems similar but not identical to the ones Mrs. Wang gave them earlier. There may be 5 or 6 different challenge problems distributed among her approximately 30 students.

In physical education, Mrs. Bowen's students usually all work with the same exercises and basketball drills. Mr. Wharton, on the other hand, helps his students diagnose their starting points with various exercises and basketball skills, set challenging goals for personal improvement, and chart their personal progress. He particularly stresses growth in two areas: those where a student is best and weakest.

In U.S. History, Ms. Roberson and her students cover the information in the text sequentially. She lectures to supplement information in the text and often uses primary documents available on the Internet to have students compare perspectives on events. Ms. Roberson includes a special emphasis on women's history and African American history during months designated by the school for those emphases.

Mrs. Washington's U.S. History students look for key concepts and principles or "big ideas" that recur in each period of history they study, as well as for concepts and big ideas unique to each period. They study different points of view and the experiences shared by various cultural, economic, and gender groups. They use a variety of text, video, audio, and online resources at varying degrees of difficulty and in different languages (to support students who are learning English).

When Mrs. Washington lectures, she always uses PowerPoint slides or whiteboard elements that emphasize key vocabulary and ideas in order to help visual learners. She also pauses throughout the lecture to encourage students to talk with one another and the class about key ideas and to ensure their grasp of those ideas.

Essays and projects often ask students to take their understanding of a period in U.S. history and contrast it with what was going on in another culture or in another geographical area during the same period. Project assignments always offer several options for how students can express their knowledge, understandings, and skills. At the end of each quarter, students can take an exam as their final summative assessment, or they can use an authentic assessment they have modified (with Mrs. Washington's guidance and approval) as half of their final summative grade. Both options require students to demonstrate the knowledge, understanding, and skill designated as essential for the unit.

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