Teaching for Excellence in Academically Diverse Classrooms

Carol Ann Tomlinson

Abstract The nature of life in the 21st century suggests that schools must prepare students to be thinkers, problem solvers, collaborators, wise consumers of information, and confident producers of knowledge. The nature of 21st century student populations suggests that schools will have to become more responsive to the broadening array of cultures, languages, experiences, economics, and interests represented in most contemporary classrooms—and to do so in ways that provide equity of access to robust learning experiences for that broad spectrum of learners. Such classrooms will be heterogeneous in nature, and learner-centered, knowledge-centered, assessment-centered, instruction-centered, and community-centered. Teachers in those classrooms will need to be proficient in “teaching up,” or planning learning experiences at a high level of challenge while providing scaffolding to support many learners in succeeding with those experiences and extending the challenge in a meaningful way for advanced learners.

Keywords Differentiation · Heterogeneous grouping · Academic diversity · Equity · Excellence

Differentiated instruction is a research-based model of classroom practice intended to support teachers in developing curriculum and instruction likely to maximize the capacity of a diverse group of learners (e.g., Sousa and Tomlinson 2011; Tomlinson 2001, 2013; Tomlinson and McTighe 2006; Tomlinson and Imbeau 2010, 2012; Tomlinson and Moon 2013). A heuristic rather than an algorithm, the model stresses the interrelated roles of classroom environment, curriculum, assessment, instruction, and classroom leadership/management in addressing the varied readiness levels, interests, and approaches to learning that are inevitable in contemporary classrooms. The ultimate aim of the model is to support maximum feasible heterogeneity in classrooms that provide equity of access to excellence for the broadest possible range of learners.

Any vision of excellence for 21st century American schools would require a plan to robustly and productively address the diversity that typifies students in those schools. For example, 24 % of school-aged students in the U.S., or about one child in five, lived in poverty in 2013, an increase of 6 % since 2000 (U.S. Department of Education 2013). Nearly 45 % of students are classified as poor or near-poor. All regions of the country experienced an increase in the number of children from poor households in that time span (National Center for Children in Poverty 2013). Clearly, poverty has an impact on learning and schooling for many students from low income homes, ranging from attendance to behavior to achievement to school completion.

In terms of ethnicity, Hispanic students in the school population have increased from 6 % in 2000 to 23 % in 2010, and are projected to make up 48 % of the school population by about 2021 (U.S. Department of Education 2013). Students in U.S. schools speak over 450 languages, with more than 10 % of students considered English language learners. That number is expected to grow to 50 % before the end of the current decade (Gray and Fleischman 2004; U.S. Department of Education 2013).

Approximately 13 % of public school students are identified for special education services, with 37 % of those students designated as having specific learning disabilities. Ninety-five
percent of special education-eligible students are served in regular schools, with 61% of that group spending 80% or more of their time in general education classrooms (U.S. Department of Education 2013).

One in five children in the U.S. suffers from some emotional or behavioral condition (National Academy of Sciences, reported in Kruger 2010). About 11% of adolescents have a depressive disorder by age 18 (National Institutes of Mental Health n.d.).

While statistics on the group often designated as gifted learners are less carefully monitored, it is certainly the case that virtually all schools and most classrooms also contain students who enter a given grade well ahead of age-mates academically—perhaps in the range of 6% of the school population (National Association for Gifted Children website: nagc.org).

In addition, of course, students bring to school with them a mélange of interests, experiences, family circumstances, support systems, degrees of maturity and confidence, and so on—all of which can affect learning. Many students bring to the classroom multiple factors that distinguish them from “the norm.”

What these and related statistics suggest is that most teachers will have in their classrooms students who are at varied points of academic readiness, speaking more than one language, and experiencing an array of needs—social, emotional, cognitive, behavioral—that need to be taken into account as teachers plan and carry out instruction, if the goal of schools is to truly educate the young people who are obliged to attend them.

Currently, student learning differences often go unaddressed in mixed-ability classrooms, with “ability grouping” and tracking remaining the “solution” of choice for dealing with differences that seem too inconvenient for the general classroom teacher to address. Recent research indicates that the practice of using relatively fixed groups for reading and math based on teacher perception of student ability in the elementary grades is on the rise. At the secondary level, the practice of “tracking” students into different classes based on “ability” has remained relatively constant over the past couple of decades, with about 75% of 8th grade math classes tracked. While less data are available on other subjects and at the high school level, indications are that a rise in tracking exists in those areas as well (Loveless 2013).

Negative impacts of ability grouping and tracking on quality of curriculum and instruction, teacher expectations, student academic outcomes, course-taking patterns, self-concept, and social integration vs. isolation have been well documented over time (e.g., Applebee et al. 2003; Carbonaro and Gamoran 2002; Finley 1984; Gamoran et al. 1995; Oakes 1985, 2005; Page 1991; Wheelock 1993). Further, tracking perpetuates class and race-based disparities as assignment to high track classes reflects a disproportionate number of White and mid to high income students and assignment to lower track classes reflects a disproportionate number of students of color and students from low income backgrounds (Lucas 1999). Over time, ability grouping and tracking clearly impact student choice of courses. For example, in 2009, while numbers of students taking advanced math and science courses rose for all ethnic groups from the previous decade, the ethnic/racial/economic gap in course-taking persisted, with 42% of Asian/Pacific Islander high school graduates and 18% of White graduates, 9% of Hispanic graduates, and 6% of Black graduates taking calculus. Likewise, while 54% of Asian and 31% of White high school graduates in 2009 completed a biology-chemistry-physics sequence, the percentages for Hispanic and Black graduates were 23 and 22% respectively (U.S. Department of Education 2013).

By contrast, evidence also suggests that heterogeneous classrooms with focused attention to students’ varying needs, and in the context of high quality curriculum and instruction, can benefit a very broad spectrum of learners in areas such as achievement, attendance, discipline, satisfaction with school, and college application and attendance rates (e.g., Burris and Garrity 2008; Burris et al. 2006, 2008); Cohen, and Lotan 1997; Tomlinson et al. 2008).

Further, since advocates for 21st century skills (e.g., Partnership for 21st Century Skills) and Common Core Standards (e.g., Common Core State Standards Initiative) make the case that virtually all students should consistently experience curriculum and instruction that require complex content, reasoning, metacognition, creative thinking, and the skills of learning, flexibility, and collaboration, it is difficult to support any argument for classes which, for low-track or low “ability” group students, reflect what one author (Haberman 1991) called a “pedagogy of poverty” (low-level, fact-based, drill-oriented) while their more privileged peers experience a “pedagogy of plenty” (Hodges 2001) in which meaning-rich curriculum, problem-focused learning, high relevance, high engagement in discussion, high relevance, and authentic tasks are standard fare. Indications are that Haberman and Hodges are correct in suggesting that students who regularly experience a pedagogy of poverty are not only disproportionately poor during their school years, but are also being schooled for a future of poverty—and that by contrast, students whose school experiences are typified by a pedagogy of plenty are not only disproportionately more affluent or privileged during their school years, but are also being schooled for a future of plenty. It is highly likely that both one-size-fits-all general classrooms and the practices of ability grouping and tracking students will fail many, if not most, contemporary learners and society as a whole if a goal of schooling is to prepare young people to function productively in a diverse society.
An Alternative to the Long Status Quo

In an era where “exceptionality” is less and less exceptional, where the world is much smaller and everyone lives everywhere, when we understand the plasticity of the brain (Willis 2006; Sousa and Tomlinson 2011) and the multiplicity of intelligences at work in society (Gardner 1993, 2007; Sternberg 1985; Sternberg and Grigorenko 2007), when we have evidence that effort more than endowment is key to success (Dweck 2007), and when what once passed as learning for students identified as gifted is an imperative for the welfare of nearly all students (Tomlinson 1996), three benchmarks should characterize viable classrooms. First, those classrooms should be heterogeneous in nature—microcosms of the world in which today’s students live and will live. Second, they should be characterized by dynamic, contemporary, compelling curriculum and instruction that commends learning as a supremely gratifying human endeavor and prepares all learners for life in a complex and rapidly changing world. Third, they should be responsive to the learning needs of the spectrum of students that make up the classes, with the goal of supporting each student in accessing and succeeding with learning that positions them to be fulfilled and contributing citizens of their time. In other words, such classrooms would be designed to provide equity of access to excellent learning opportunities for an intentionally heterogeneous group of students.

A useful way to think about and plan for such classrooms is through the concept of “teaching up” (Tomlinson and Javius 2012). In developing differentiated or responsive instruction, teachers necessarily begin planning with some group of students in mind. Some teachers, for example, start planning from “grade level” expectations and differentiate “up” or “down” from that point. Others begin by crafting a learning experience that focuses on the essentials for students who have more difficulty with particular content in order to ensure clarity about the essentials, and differentiate from that foundational position. Teaching up asks teachers to begin by crafting tasks that represent effective challenge for advanced or high-end learners and then to differentiate or scaffold learning in ways that support a very broad range of students in working with that “advanced” level of knowledge, understanding, and skill. “Teaching up” is rooted in six key principles.

1. Human differences are not only normal, but desirable. Learning is enriched by varied perspectives and learners are enriched by meaningful associations with learners from a range of ethnicities, languages, experiences, economic backgrounds, and abilities in a setting that provides for multiple ways to make and express meaning.

2. A growth mindset (Dweck 2007) is fundamental to teaching that enables equity of access to excellent learning opportunities. Teachers believe, or come to believe, that the ability to succeed with rigorous learning resides in all students, not only those who come from more privileged circumstances. They help all students develop the understanding that a person’s effort is key to academic growth and success, and develop the attitudes and habits of mind of hard work and intelligent work. Teachers consistently demonstrate to every student their unwavering support for and partnership in that student’s success.

3. Effectively supporting success for diverse learners calls on teachers to be students of their students. Because of their desire to facilitate maximum academic growth for student whose experiences and contributions differ, teachers who teach up persistently seek to understand each student’s culture, interests, strengths, needs, approaches to learning, perspectives, and contributions. Thus, teachers also use regular formal and informal formative assessment to understand students’ evolving learning trajectories relative to essential content goals. The resulting insights enable the teacher to create a classroom environment, management routines, and instructional plans that are respectful, invitational, and effective for the full complement of students in the classroom.

4. Students come to any lesson or learning experience at varied points of entry and will work through sequences of learning at different rates. Therefore teachers provide opportunities both for whole class work on shared goals and individual and small group work on more personalized goals that must be addressed to pave the way for individuals’ academic growth. In addition, teachers understand that some students may have felt racially, culturally, or socially isolated in school. Therefore, the teachers create and find opportunities to attribute status (Cohen 1994) to these students—that is, to point out in appropriate ways to peers when these students make noteworthy contributions to the work of the class or of a small instructional group. Opportunities to assign status increase as teachers design tasks at levels of challenge and in working arrangements that target students’ particular points of development so that their rate of success is relatively consistent.

5. Teaching up requires working from a base of rigorous and relevant curriculum and instruction. This sort of curriculum and instruction includes clarity about what is most important for students to know, understand and be able to do as the result of any segment of learning, content that authentically reflects the nature and concerns of the discipline, work that focuses students on understanding and being able to apply and transfer what they learn, and tasks that are constructed to engage student attention curiosity, and thought. It suggests that teachers understand the conceptual framework of the disciplines they teach in order to help students construct that framework for themselves.
also suggests purposeful connection with or relevance in light of student experiences and interests so that students can link what they learn to what is meaningful in their own lives and experiences. Flexible classroom routines and procedures that attend to learner needs and build learner efficacy support equity of access to excellence for diverse learners. Classrooms that balance structure and flexibility make room for student variance and enable teachers to account for students’ varied approaches to learning. In addition, the balance enables student engagement with complex, understanding-focused content (Darling-Hammond et al. 2007) and, when students are partners in ensuring smooth operation of the routines, help students develop a sense of agency and responsibility as well (Tomlinson and Imbeau 2010; Weinstein et al. 2004).

6. Reflective practice enables teachers to calibrate instruction to address both student needs and content requirements. Teachers who teach up are vigilant in understanding where students are at a given time relative to complex goals. They are astute observers in the classroom and regularly ask themselves what’s working and for whom as well as what’s not working and why. They share their aspirations for the success of every learner and their thinking about the classroom with students and seek student input on the effectiveness of both instruction and classroom processes. Their growth mindset extends to the belief that their own evolving and diligent work is imperative for positive student outcomes and that they have the capacity to do what is necessary to facilitate those outcomes.

Teaching up is differentiation with an upward orientation. It calls on teachers to be thoughtful about what they teach, responsive to who they teach, and resourceful in how they connect those two key classroom elements. That seems like an implicit expectation for any contemporary classroom, and certainly for a classroom aimed at preparing young people for the roles of the future. Nonetheless, it is likely that classrooms in which teachers routinely exhibit those characteristics are currently in short supply.

A decade of emphasis on coverage of relatively low-level standards in preparation for right answer standardized tests has done little to commend creation of rich, robust curriculum and flexible instruction, and less to grow teachers who have the competence and confidence to create them. Further, while student populations are increasingly diverse in terms of ethnicity, culture, language, and economic status, it is still the case that the teaching force in the U.S. is still predominately Caucasian, middle class, monolingual, and most often educated in colleges with the same basic demographic profile (Weinstein et al. 2004), resulting in a large number of teachers whose cultural and language competence is restricted. In addition, teacher and administrator fondness for tracking spares most teachers from having to master either the sorts of literacy and numeracy supports necessary to aid students who have significant difficulty in mastering complex content or the kind of meaningful challenge necessary to extend the learning of students whose academic progress outstrips that of their grade-level peers. Thus much of the foundational knowledge, skill, understanding, and experience that are necessary to provide equity of access to high quality learning for the broad range of learners who populate the schools of today and will populate the schools of tomorrow are in short supply. Re-tooling expectations for quality teaching will have to precede a proliferation of classrooms in which quality education awaits academically diverse students.

The Way Ahead

*How People Learn: Brain, Mind, Experience, and School* (National Research Council 2000) provides a synthesis of research on the nature of classrooms that reflects our best understanding of teaching and learning. Those classrooms are described as learner-centered, knowledge-centered, assessment-centered, and community-centered. Here, I separate knowledge-centered and instruction-centered for clarity in spotlighting the curriculum/assessment/instruction continuum that is critical to success in any classroom, and certainly for a teacher who aspires to create equity of access to excellent learning for a broad range of learners.

The five “design characteristics” provide a helpful framework for thinking about re-tooling teaching. Elaborating the five design elements with key findings from Hattie’s synthesis of over 800 meta-analyses on student achievement (2009, 2012), related guidance from key sources on culturally competent teaching (e.g., Banks and Banks 2004; Gay 2010), and the principles of effective differentiation (Sousa and Tomlinson 2011; Tomlinson 2001, 2013; Tomlinson and McTighe 2006; Tomlinson and Imbeau 2010, 2012; Tomlinson and Moon 2013) generates useful descriptors of how the four design elements might appear in classrooms that provide equity of access to excellence for the broadest possible array of students. The following design elements and indicators are descriptive of teachers and classrooms where effective teaching up is the norm.

The Classroom is Learner-Centered

- The teacher builds bridges between the students’ homes and school.
- The classroom is validating for each student, consistently respectful of each student’s humanity, culture, and experiences.
- The teacher makes room in the classroom for students’ varied strengths, experiences, and cultural values.
• The teacher has full confidence that each student in the class has the capacity to succeed academically and conveys that trust to the students singly and as a group.
• The teacher consistently communicates caring and support to each member of the class.
• The teacher connects with each student in order to support students in taking the risk of complex learning.
• The teacher is aware of students’ varied starting points in any given segment of study as well as of their progress at any given time and works with the goal of doing what is necessary to move each student along a continuum of learning as efficiently and effectively as possible.

The Classroom is Knowledge-Centered

• The teacher is aware of precisely what is most important for students to know, understand, and be able to do as the result of any segment of learning.
• The teacher ensures that students are continually aware of key learning targets.
• Knowledge is organized around key concepts and principles of the discipline.
• The teacher helps students connect content with their life experiences.
• The teacher teaches beyond textbooks or standards to ensure student understanding.
• The teacher designs the curriculum to be engaging and relevant for the full range of students who are asked to master it.
• The curriculum regularly reflects members of a broad range of cultures and both sexes as consumers, conservers, and producers of knowledge.
• The teacher helps students understand how knowledge is organized so that they can retain, retrieve, apply, transfer, and create with the knowledge more readily.
• The teacher helps students move steadily toward expertise in the discipline or content area.
• The teacher ensures that each student moves beyond surface knowledge of content to deep understanding.

The Classroom is Instruction-Centered

• Instruction is tightly aligned with knowledge, understanding, and skill designated as essential for the content students are learning.
• The nature of students’ classroom experience regularly communicates the message that academic success is expected of every student and that it is an achievable goal through hard work, intelligent work, and collaboration.
• Learning is active, dynamic, authentic, and experiential.
• The teacher consistently uses information from formative assessments to plan instruction targeted to students’ varied next steps in learning.
• Instructional plans allow for in-common student experiences around key knowledge, understandings, and skills as well as learning experiences that enable students to work in small groups or alone to take their own next steps in those areas.
• Classroom routines balance structure and openness to ensure both predictability for learners and flexible use of classroom resources such as time, space, materials, groupings, modes of exploring and expressing learning in order to effectively address students’ varied learning trajectories and accommodate complex thinking.
• The teacher develops meaningful practice for students at levels of difficulty slightly beyond their current points of development, designed to help them create conceptual schema for the content they are studying, and with support systems that enable them to accomplish the new level of challenge.
• Tasks for all students/groups are equally interesting, focus on essential knowledge, understanding and skill, and require students to reason and to use what they learn.
• Students work consistently in a variety of purposeful groupings with tasks designed to draw on the strengths of all group members and at appropriate levels of challenge to move group members ahead in their learning.
• The teacher ensures that students learn the skills necessary for learning, collaboration, and autonomy.
The Classroom is Community Centered

- The teacher is attuned to making the classroom environment invitational for each student.
- Student-teacher relationships indicate to students that the teacher is a caring and trustworthy partner in their success.
- Each student learns to contribute to a classroom environment in which everyone feels valued, recognized, seen, and heard.
- The classroom functions like a strong team or family where all members support the success of one another and the group as a whole.
- Messages students receive are clear that everyone is expected to be a high achiever.
- Teacher and students have a shared vision of the classroom as a place that supports the success of each learner in it.
- Teacher and students share responsibility for effective functioning of classroom routines.
- Students help one another learn and know how to learn.

Classrooms that are learner-centered, knowledge-centered, assessment-centered, instruction-centered, and community centered reflect our accumulated knowledge of the science and the art of education. Classrooms that succeed in preparing diverse student populations to survive and thrive in the generations ahead will have to reflect best practices in those areas. There is no substitute for, no detour around consistent implementation of those practices.

The System in Service of Classroom Excellence

Classrooms, of course, are part of a broader system of education and classrooms that offer equity of access to excellence will not proliferate without a system-wide focus on creating and supporting those classrooms. Schools and districts can be structured to give intelligent support for teachers’ work in terms of providing useful learning sequences that are helpful in both diagnosing student learning needs and planning for students varied next steps in those sequences, persistent, classroom-focused professional development that attends to variance in teacher growth, time for collaboration, meaningful access to educational specialists, and structures to support family involvement. Policy makers should emphasize teacher development over measurement and evaluation. Technology, appropriately understood and used, can assist teachers in many aspects of instruction that opens access to excellence for a broad range of students. Certainly teacher education programs must prepare novice teachers in terms of deep knowledge of content areas, designing and implementing mentally complex curriculum, cultural competence, supporting development of students who struggle with aspects of learning, and extending challenge for students who excel. In the end, however, it is quality of teaching robust content to a diverse group of learners that will win—or lose—the day.

When these (high quality) professionals see learning occurring or not occurring, they intervene in calculated and meaningful ways to alter the direction of learning to attain various shared, specific, and challenging goals. In particular, they provide students with multiple opportunities and alternatives for developing learning strategies based on the surface and deep levels of learning content or domain matter, leading students to build conceptual understanding...which the students and teacher then use in future learning. Learners can be so different, making it difficult for a teacher to achieve such teaching acts—students can be in different learning places at various time using a multiplicity of unique learning strategies, meeting different an appropriately goals. Learning is a very personal journey for the teacher and the student, although there are remarkable commonalities in the journey for both (Hattie 2009, pp. 22–23).

Whatever changes characterize the classroom of the future, it’s difficult to conceive that it can be successful in offering a 21st century vision of excellence to an increasingly heterogeneous population short of understanding the common human need for meaningful learning delivered in ways that dignify and lift the prospects of each learner.

Further Reading


Tomlinson, C. 2013. The differentiated classroom: Responding to the needs of all learners (2nd ed.). Alexandria: ASCD.


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