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# THEORY INTO PRACTICE



## *Detracking and Heterogeneous Grouping*

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## Teaching Teachers to Build Equitable Classrooms

*Whether they are the outcome of global immigration trends, residential living patterns, or educational reform efforts such as detracking, heterogeneous classrooms pose considerable pedagogical challenges for educators. This article describes a systemic approach to restructuring the classroom with the goal of establishing and maintaining an equitable environment by creating curriculum, instruction, and assessments deliberately and purposefully to address the range of previous academic achievement and academic skills, the linguistic variability, and the intellectual diversity found in heterogeneous classrooms. A reconceptualization of intellectual competence, academic ability, or just plain being smart is at the core of teachers' efforts to build equitable classrooms. In practice, to narrow the achievement gap and to build equitable classrooms, teachers need to work toward equal-status, balanced interaction among students working together in small learning groups. The article also details the necessary conditions for teachers to learn and to practice equitable pedagogy.*

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**A**CADEMICALLY AND LINGUISTICALLY heterogeneous classrooms have become a prevalent phenomenon in the United States and in other parts of the world. Whether they are the outcome of global immigration trends, residential living patterns, or educational reform efforts such as detracking, many classrooms today include students who have a wide range of previous academic achievement and different levels of oral and written proficiency in the language of instruction. Such classrooms pose considerable pedagogical challenges for teachers and administrators who aim to support the learning of all their students. Many parents worry that their children are not challenged academically or, alternatively, that the children's learning needs are not adequately met in these contexts. Many students struggle as well. Some cannot keep up with the content or the pace; others become uninterested and feel that the school is holding them back.

Structural and pedagogical responses to heterogeneous classrooms vary in their objectives and in their consequences. By using within-class ability grouping, individualized instruction, or differentiated instruction, teachers intend to diagnose the individual learning needs of their students and identify their individual strengths, skills, and talents. They attempt to design specific learning plans and tasks for each student or for groups of students with

similar academic profiles. Teachers are urged to adapt, adjust, change, and modify their curriculum, their instructional practices, and their assessments to accommodate each student's distinctive individuality fairly and equitably. This is surely a worthy goal, albeit rather unrealistic when interpreted literally, as many classrooms include more than 30 students, and teachers in secondary schools often meet at least 150 students daily. Although reducing class size can alleviate the teacher's workload, it does not automatically translate into more effective teaching practices and improved student learning.

In this article, I describe a way to introduce to teachers a *systemic* approach to restructuring the heterogeneous classroom with the goal of establishing and maintaining an equitable environment. Let us characterize the classroom as a social system rather than as a collection of 30-some individuals directed, managed, led, and controlled by a teacher. This sociological view of classrooms allows us to consider how the environment and the learning tasks created by teachers affect the quality and the level of interactions among students and the ways they view and treat one another. It also allows us to consider how teachers use their authority to manage the classroom, how they craft learning activities, and how they evaluate student work in ways that support productive and equal-status interactions (Lotan, in press). I propose that rather than adjusting and modifying learning assignments and teaching strategies originally designed for an imaginary average student, teachers plan for heterogeneity *a priori* rather than modify *post hoc*. I suggest that teachers create curriculum, instruction, and assessments deliberately and purposefully to address the range of previous academic achievement and academic skills, the linguistic variability, and the intellectual diversity found in heterogeneous classrooms. In writing this article I draw on my experiences teaching a course in the Stanford Teacher Education Program (STEP) entitled *Teaching in Heterogeneous Classrooms*.<sup>1</sup>

### Equitable Classrooms

When working in heterogeneous classrooms, many teachers strive to make their classrooms eq-

uitable places. In equitable classrooms, all students have access to grade-appropriate, academically rigorous and intellectually challenging curriculum, productive interactions with the teacher, and equal-status interactions with peers. In equitable classrooms, students and teachers recognize that different intellectual abilities and competencies are relevant to the successful completion of the learning tasks. In equitable classrooms, students display their smarts in many different ways. They have many opportunities to demonstrate their skills, talents, and understanding of the content. Their intellectual contributions are publicly recognized and valued (Cohen & Lotan, 1997).

This emphasis on a redefinition of intellectual competence, academic ability, or just plain being smart needs to be at the core of teachers' efforts to build equitable classrooms. In an enlightening study, Oakes, Wells, Jones, and Datnow (1997) identified the connections between educators' beliefs about intelligence and conflicting conceptions of students' academic ability on the one hand, and their resistance or support of school reform, specifically detracking and heterogeneous grouping, on the other. Their study affirms that "detracking includes far more than simply rearranging instructional grouping patterns in schools in ways that both boost and more evenly distribute learning" and "that newer, more democratic conceptions of intelligence and the ideal of detracking that follows from these conceptions compete with traditional beliefs about intelligence and a schooling structure that, for the better part of a century, has accommodated a hierarchical, 'mass production' system" (p. 503).

Rubin (2003) illustrated this argument as she skillfully documented the technically adept, progressive, and student-centered pedagogical practices of two teachers deeply committed to detracking but who still categorized their students as strong and weak in the traditional academic sense. These teachers emphasized the need to construct balanced groups based on perceived variation in academic strength:

In spite of the teachers' belief in "multiple intelligences" approach, small groups in the detracked classroom were nevertheless built with an

eye toward balancing "strong" and "weak" students, as defined in a traditional academic sense. "I do build it from the weak kids up," Mr. Apple told me. "I don't build it from the strong kids down." In this way, the markers of competence constructed in the whole class context made their way into the small group context. Students who were competent readers and writers and who kept up with their assigned work were positioned as experts, and those who were seen as having lower skills were placed with their more highly skilled peers, with academic assistance as the implicit goal. (p. 552)

It is not surprising then that youngsters in this class formed their expectations for the intellectual contributions of other members of their group based on a traditional conception of academic competence and of what made a good student: someone who was always reading, did the work, and did not play or mess around. Thus, when groups were structured by the teacher for a balance of academic skills, every group member could not, by definition, be perceived as a good student as described by Rubin (2003):

Groups were built around "weak students." Thus some students came into the small group setting bearing reputations as "bad students": students who "don't really pay attention in class" and "don't do their work" ... , who "don't want to learn" ... , "don't even try" ... , and who are "rude" .... This was a difficult position to hold in a group setting and often led to a reduction in responsibility for those students. (p. 557)

Clearly, group mates did not perceive bad students as competent nor were they expected to make potentially valuable contributions to the group effort.

### **Teaching Teachers to Recognize Intellectual Competence**

A reconceptualization of what it means to be smart in the classroom does not come easily to students nor to teachers. In STEP, in addition to Cohen's (1994) book, we read the work of Gardner (1983), heed his warnings regarding misinterpre-

tations of his theory of multiple intelligences (Gardner, 1995), and reflect on its widespread applications to the classroom. We debunk myths and countermyths as we delve into Sternberg's (1998) clear statements and persuasive redefinition of intelligence and human abilities. We discuss teacher-authored cases about the topic (Shulman, Lotan, & Whitcomb, 1998). We watch video vignettes and recognize students who solve problems effectively and with great aplomb, yet are not successful on traditional academic tasks.

To make the crucial connection between theoretical assertions and practical manifestations, the teacher candidates apply the renewed interpretation of intellectual competence as they analyze and recognize its implications for their own lives and those of their students. Kate Morgan, a teacher candidate in STEP wrote about what being smart meant for her:

Even though they may not believe it, all students are "smart." Each student has unique strengths. These strengths empower students to understand complex concepts and show their intellectual abilities. The problem arises in schools, when "smart" comes in only one definition and when students measure their "smartness" in accordance to their grades and test scores. From the time students are in elementary schools, they are classified in terms of "smartness." I can still tell you today what kids in my third grade class were considered "smart." We were the ones who were in the advanced reading group. We got special privileges. And it was the decision of my sixth grade teacher that allowed me to be in the "smart" math track, leading me to AP Calculus as a senior in high school. Being a part of that group myself, I only understood that the system worked for me. I never considered the consequences that may have occurred for the students who were not part of the same group. Now as a teacher, I have begun to rethink how students should be classified. It is my hope that in my classroom, all students feel challenged and all students, given the opportunity, can show that they are "smart."

Diana Shem, Kate's colleague, detailed the difficulties her students in the 11th-grade chemistry class were having as she attempted to redefine what it meant to be smart in her class:

The high school where I am placed heavily emphasizes test scores as a way of assessing intelligence. The curriculum is not designed to engage the students to think critically or to achieve deeper understanding. Instead, they are trained to learn through lecture and rote memorization. Students who cannot learn this way are thought to be “unsmart” and thus have a hard time succeeding in the class. The Cohen reading referred to this as a consequence of the narrowness of school curricula. At times I find myself evaluating the students on their reading/writing/computing abilities since that is the status quo at my placement. But as I started to emphasize group work, artistic skills, creativity, critical thinking and leadership, some students who are used to getting A's the traditional way are no longer finding themselves at the top of the class. I also see students who were just “average” in the traditional method of teaching doing much better now in terms of their performance. This has caused some resentment amongst a group of (former A) students who feel that I don't “teach” because I don't spend 40 minutes lecturing to them. They complain that I don't tell them the important stuff so that they can go home and study it. I try to balance the instructional method of giving them information via short lectures and handouts along with activities that will require group work, creativity, social skills, and critical thinking. This new approach to instruction has helped me realize that there are “hidden” abilities in many of my students who may not be great at reading/writing/computing.

Diana's entry reflects the effort needed to counteract this countercultural and counternormative view of intelligence in traditional high schools.

### Perceived Competence and Rates of Participation

When students hold predetermined expectations for their peers' intellectual competence there are serious consequences for their interactions in heterogeneous settings. Students develop academic and social hierarchies based on such expectations. High expectations for competence attached to high status ranking translate into higher levels of participation and stronger influence on the group's decisions. Low expectations attached to low status

rankings result in lower levels of participation. Because those who participate more learn more, the gap in levels of participation contributes to the widening of the learning gap. In calling it a status problem, Cohen (1994) identified and documented the effects of academic and peer status on participation and subsequently on learning. Cohen and Lotan (1995) cautioned teachers and educators that unless these problems of unequal status and thus unequal participation are addressed in detracked heterogeneous classrooms, one form of inequality will replace another.

In different situations, Steele (1997) documented how societal stereotypes about groups shape the individual's intellectual identity and functioning. He showed how *stereotype threat* depresses performance and undermines intellectual identity in the case of previously high-achieving college students. To counter stereotype threat, Steele proposed to redefine for these students the notion of intellectual potential and called for educational programs that would convince these students that expectations for their intellectual competence are high.

In classrooms, status problems are readily recognized by teachers. Without hesitation, teachers can name students who are vocal and dominate, and others who seem withdrawn and rarely participate. Common explanations for these behaviors define them as manifestations of students' personalities: Teachers claim that some are natural leaders and others are shy. Although manipulating students' personality traits might be an option, achieving results would be difficult. It is preferable to confront the problem by manipulating the situation, rather than the individuals, by balancing the interaction and equalizing rates of participation. Furthermore, rather than being an enduring personality trait, low- or high-status behaviors are situational. Many students are perceived differently and may act quite differently from class to class and from period to period. Thus, an alternative explanation might be more useful—one that allows us to devise an effective intervention based on understanding the process of how unequal interaction occurs in the first place.

Cohen (1994) used sociological theories to shed light on the phenomenon of unequal partici-

pation and to devise interventions that produce equal-status interaction. Cohen described the process of a self-fulfilling prophecy: Those who are expected to be more competent or are popular participate more and have greater influence. They are perceived as having high academic and peer status. Those who are expected to be less competent and have few or no friends participate less and therefore their competence is cast in doubt. They are perceived as having low status. Cohen continued by offering two strategies to weaken the relation between status and participation: the multiple-ability orientation and assigning competence to low-status students. These strategies are based on a definition of intelligences as multidimensional, incremental, and malleable.

### **Learning to Use Strategies to Equalize Participation**

When using the multiple-ability orientation, teachers challenge the traditional definition of the kind of smarts needed to solve complex problems and the existing perceptions of what some students can or cannot contribute. When they design rich learning tasks, teachers are able to broaden and deepen their own and their students' conception of intelligence, or in other words, what students can do with what they know. The multiple-ability orientation is grounded in the use and analysis of tasks that require many different intellectual abilities for their successful completion in addition to the traditional academic abilities of reading, writing, and calculating. It is based on the teacher's public recognition of the wealth of intellectual competencies and problem-solving strategies that are relevant and valued in the classroom, just as they might be in daily life.

For example, Justin Green, a STEP teacher candidate, described the task he assigned to the recently arrived immigrant students in his English Language Development (ELD) class as follows:

In my ELD class, we are currently beginning a unit on poetry and students are developing their understanding of poetry analysis as well as writing original poetry. The work we are beginning requires a

huge range of intellectual abilities to complete successfully, and many of my students, especially those with less background in formal education, are still in the early stages of development in these areas. Some of these intellectual abilities are: reading, writing, organizing information, synthesizing, following directions, making inferences, hypothesizing, describing accurately, illustrating, interpreting, cooperating, listening, analyzing abstract ideas, classifying, summarizing main points, gathering resources (library work), empathizing, articulating feelings, rhyming, conceptualizing a product.

All students in the class had an opportunity to demonstrate their intelligences last week as we worked through an ode by Pablo Neruda. Students showed their intelligence in a variety of ways. They first *read* the poem to themselves and *identified* any words that were new to them or needed clarification on the meaning. Each student *wrote* his or her words on the board and then we *hypothesized* in small groups about the meanings using context clues and cognates. Then Jose, Teresita, Jesus, Silviu, George, and Savitha *reported* their findings to the class. Students *listened* as I read the poem aloud and *articulated* their feelings in writing, which they *described* to their peers in the pairs.

Later, students began *writing* their own odes and went through several days of scaffolding up to a final product. They listened and followed directions to *identify* an important object or person, *brainstorm* characteristics, and *organize* the information in an outline for the poem. After *analyzing* Neruda's ode, the students *applied* his use of metaphor and imagery into their own poems and, in doing so, *articulated* their feelings in verse.

In the last 2 days, students went to the library and *sought* and *gathered* materials for the poetry unit. They *read* poems and chose one that piqued their interest for any reason and their assignment was to try and *articulate* what they like about their chosen poem.<sup>2</sup>

Justin introduced reading and writing poetry, a daunting task for many students, as it requires a host of intellectual abilities beyond just reading and writing. Students needed to become convinced that everyone had some of these abilities but no one had all of them. Thus, they could serve as intellectual resources to one another. Furthermore, students came to understand that these intellectual abilities can be learned and developed. As

Sternberg (1998) argued, abilities are a form of developing expertise and novices are to be viewed as capable of becoming experts in a great variety of domains.

In the first intervention in the STEP course, teacher candidates practiced planning and delivering multiple-ability orientations. In preparation for this task, they read about the theory and the proposed interventions, watched and discussed videotapes of teachers using multiple-ability orientations in their classrooms, and experienced orientations that the section leaders (all practicing teachers) and I modeled whenever the candidates were working in small groups. As a result, they came to understand the theoretical explanations for the existence of status problems and the rationale for the proposed interventions. They also came to recognize the practical expression of a multiple-ability orientation. During one of our class meetings and working in small groups, they first analyzed samples of rich groupwork tasks from their respective subject areas to identify the many different intellectual abilities needed to complete them. Next they planned a brief, yet persuasive, multiple-ability orientation that they delivered in front of their peers. After the presentation, the teacher candidates received feedback from their colleagues on the effectiveness of the presentation. Was it explicit yet not too long? Was it convincing? Was the presenter able to convey the central message that no one in the group has all the intellectual abilities needed but everybody has some? Could students expect to use each other as resources to complete the group task?

The second intervention, designed to weaken the relation between status and participation, was assigning competence to low-status students. Using this strategy, teachers pay particular attention to the performance of low-status students and identify instances when they demonstrate how competent they are on some of the abilities previously identified in the multiple-ability orientation. The teachers then point out to the student and to the group what the student did well and how his or her contribution is relevant to the group's success. This strategy is designed to alter the expectations of competence students previously held for one another and for themselves.<sup>3</sup>

Assignment of competence must occur when low-status students make a relevant and thus intellectually valued contribution to the successful completion of the task. The teacher's public and specific acknowledgment serves to change the mutual expectations students hold for each other as well as for themselves. After students come to recognize that many different intellectual abilities are needed for completing the task and that all group members are potentially valuable contributors, they will rely on each other to be useful academic or linguistic resources for the group effort.

Students who are perceived as having low academic status should not be relegated to simplified or lesser tasks. That would greatly exacerbate the negative expectations held by their peers. Assigning competence is effective in reducing status problems when the teacher provides honest and specific praise to the student for his or her intellectual contribution to a valued outcome. Drawing, building models, role-playing, using various materials and equipment, interpreting diagrams or graphs, making accurate observations, proposing original ideas, providing examples from real life, and finding textual and nontextual resources should be authentic and indispensable elements of the learning task. They are some of the ways in which students should be able to access information or demonstrate competence in addition to, and not in lieu of, reading and writing, the traditional academic skills. Indeed, if previously low-achieving students can be drawn into the task through the use of multiple representations of the information, different media tools, and different resources, their achievement scores on various outcome measures, including paper-and-pencil assessments, increase significantly (Cohen & Lotan, 1997).

Although teachers unhesitatingly identify manifestations of high- or low-status behavior and readily recognize the damaging consequences of status problems, learning to use the interventions is a relatively slow and gradual process. First, teachers need to become convinced that multiple intellectual abilities can become relevant in their classrooms. Next, they need to persuade their students of the existence and the use of multiple intellectual abilities for school tasks. In doing so,

teachers successfully confront entrenched socialization to the contrary. Finally, as Oakes et al. (1997) alerted us, introducing parents to this reconceptualization of smarts and a new meaning of success in and out of the classroom is an unavoidable political necessity. Thus, how to engage in political activism becomes a necessary component of the education of teachers.

### **Conditions for Producing Equal-Status Interactions**

The following necessary conditions need to be addressed before teachers can have the time, space, and opportunity to develop the complex strategies already described and before students learn how to serve as academic resources for one another: self-managing small groups of students that are the result of the teacher's delegation of authority, group-worthy learning tasks, and multiple and varied tools for evaluating student work.

Teachers can support equal participation by providing feedback and assigning competence, and can push and probe students' thinking when they are free to observe closely how students work during small group time. To do so, they must put in place a system by which students become responsible for their own and their peers' engagement and learning in the groups. Groups learn to manage themselves when teachers delegate authority and guide the students in the use of cooperative norms and specific group roles (Cohen, 1994). Yet, as I described elsewhere (Lotan, 2004), learning to delegate authority takes time and is particularly challenging for teachers.

Group-worthy tasks provide students with multiple paths to access the content and with multiple opportunities and ways to demonstrate competence (Lotan, 2003). Without such tasks, the teacher can neither present multiple-ability orientations nor assign competence to low-status students. In addition, group-worthy tasks are complex activities that require genuine problem-solving and present rich opportunities for discussion and deliberation. In crafting group-worthy tasks, the teacher delegates *intellectual* authority to the students.

To a great extent, students develop expectations for competence (i.e., their perceptions of smarts) for themselves and for others based on the teacher's public evaluations of classroom performances. When teacher evaluations are based on narrow, unidimensional tasks, students' academic rankings and thus academic status are easily established and disturbingly enduring. However, when evaluations vary in content and in form, they support the creation of a mixed set of expectations for competence, thus increasing rates of participation of previously low-status students. Multiple, varied, and authentic assessment tools provide abundant opportunities for students to demonstrate multiple intellectual abilities, thus bolstering the changed conceptualization of what counts as successful learning and achievement in heterogeneous classrooms.

### **Conclusion**

To narrow the achievement gap in detracked, heterogeneous classrooms and to build equitable classrooms, teachers need to work toward equal-status, balanced interaction among students working together in small learning groups. A view of the classroom as a social system has allowed us to specify the processes and the conditions that allow teachers to understand and to practice their pedagogy in ways that acknowledge the range and the diversity of students' intellectual competence and realize their potential for academic achievement. Teachers learn and utilize equitable pedagogy through a solid connection between theory and practice, and a healthy dose of social engagement.

### **Notes**

1. For a detailed syllabus and assignments for this course see [www.stanford.edu/group/step/academics](http://www.stanford.edu/group/step/academics).
2. Emphases in original.
3. For more detailed information about these interventions and the empirical evidence supporting their effectiveness see Cohen (1994) and Cohen and Lotan (1995).

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