



A Center Policy Brief

Matching Students and Instruction: The Dilemma of Grouping Students*

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Abstract

After damning indictments in the 1970s and 1980s, classroom ability grouping and tracking practices fell into disrepute and declined. Data over the last decade indicate a resurgence of grouping practices in classrooms. As discussions about the negative impact of ability grouping and tracking have reemerged, there is a tendency to by-pass the role of appropriate groupings in matching classroom instruction to learners.

This brief highlights the part grouping plays in facilitating student learning and the dilemma of minimizing potential grouping negative effects. The emphasis is on stressing that (1) appropriate grouping is an essential feature of most efforts to teach in classrooms and (2) providing learning supports when necessary is essential to minimizing negative effects.

This brief was stimulated by a project undertaken by Carlos Sandoval as part of his work with the national Center for Mental Health in Schools at UCLA.

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Matching Students and Instruction: The Dilemma of Grouping Students

We must take classroom learning beyond a one-size-fits-all mentality and bring it fully into the 21st century.

Arne Duncan (2012)

Recent reports highlighting widespread ability grouping of students have renewed discussions about grouping and tracking. However, much of the current discussion seems to by-pass the problem of matching instruction to learners in classroom settings.

After damning indictments in the 1970s and 1980s, classroom ability grouping and tracking practices fell into disrepute and declined.¹ Data over the last decade indicate a resurgence of grouping practices in classrooms.² Tracking in the form of assigning students to certain classes based on designated ability also dipped initially, but for the most part continues to produce differential course placements of students that are associated with inequities in post-secondary opportunities.

At the outset, we want to be clear that academic tracking per se is inappropriate. Grouping and placing students in classes solely based on their test performance and grades has negative repercussions to the students and to the society. The potential negatives include reducing equity of opportunity at school and beyond, perpetuating inequities and disparities based on race and socio-economic status, fostering a climate of hopelessness and disengagement at school and in the community, contributing to mental health problems of students and staff, pushing students and staff out of schools, reinforcing disillusionment about public education, and more.

That said, in the 21st century, discussions of *classroom* grouping practices must focus on the appropriate role for grouping in facilitating student learning. At the same time, attention must be given to the dilemma of minimizing potential negative effects. Our emphasis here is on (1) grouping as a fundamental feature of most efforts to teach in classrooms and (2) learning supports that directly address barriers to learning and teaching as essential in minimizing the dilemma of negative effects.

Ability grouping emerged in the early 20th century "as a way to prepare students for their "appropriate" place in the workforce." Those seen as having high ability were enabled to pursue rigorous academic learning; those with low ability were guided to vocational education. "The two most common forms of ability grouping are:

- Within-class grouping - a teacher's practice of putting students of similar ability into small groups usually for reading or math instruction
- Between-class grouping - a school's practice of separating students into different classes, courses, or course sequences (curricular tracks) based on their academic achievement

From the website of the National Education Association (NEA)
<http://www.nea.org/tools/16899.htm>

The Problem of Matching Instruction to Learners

Based on a reciprocal determinist understanding of learning and behavior, good learning and effective teaching are complex, dynamic, transactional, and spiraling processes. Teaching and learning in any school adds to the complexity. And the conditions in some school settings makes the complexity extreme.

Regardless of situation, the fundamental teaching problem is matching instruction to the learner. In a classroom, that problem is compounded by the number of learners and by the number of students manifesting learning, behavior, and emotional problems.

Researchers have a long history of exploring the problem of *match* or *fit*.³ Teachers wrestle with the problem whenever they try to *meet learners where they are*. The ideal is to establish an *optimal* instructional match with the learner's current status in order to produce optimal outcomes. The reality is that this holy grail can only be approximated.

Differentiated Instruction

For some time, efforts to establish an appropriate match for learning in classrooms have revolved around the term *differentiated instruction* – sometimes discussed as individualized instruction and increasingly referred to as personalized instruction. Individualized and personalized instruction overlap in their emphasis on addressing variations among learners in *capabilities*. However, as we discuss below, the concepts differ when it comes to addressing variations among learners with respect to *motivation*.

Differentiated instruction requires grouping students. And grouping raises the potential dilemma of channeling students into tracks.

Be clear: The intention of differentiated instruction is not to track students – just the opposite. The aim is to enable teachers to give every child access to the curriculum and ensure that each makes appropriate progress. A well-designed classroom enables a teacher to rotate and work directly with a group while the rest of the students work in small groups and on independent activities.⁴

Differentiated instruction seeks to "maximize each student's growth by recognizing that students have different ways of learning, different interests, and different ways of responding to instruction. In practice, it involves offering several different learning experiences in response to students' varied needs. Educators may vary learning activities and materials by difficulty, so as to challenge students at different readiness levels; by topic, in response to students' interests; and by students' preferred ways of learning or expressing themselves"

Diane Ravitch

Differentiated Instruction and Grouping

Obviously, students should never be grouped in ways that harm them. This applies to putting students in low ability tracks and segregating those with learning, behavior, or emotional problems. But grouping is essential for effective teaching. *Appropriate grouping* facilitates student engagement, learning, and performance. Besides enhancing academic learning, it can increase intrinsic motivation by promoting feelings of personal and interpersonal competence, self-determination, and positive connection with others. Moreover, it can foster autonomous learning skills, personal responsibility for learning, and healthy social-emotional attitudes and skills.

Effective grouping is facilitated by ensuring teachers have adequate resources (including space, materials, and help). The key to effective grouping, however, is to take the time needed for youngsters to learn to work well with each other, with other resource personnel, and at times independently.

Done appropriately, students are grouped and regrouped flexibly and regularly based on individual interests, needs, and for benefits to be derived from diversity. Small learning groups are established for cooperative inquiry and learning, concept and skill development, problem solving, motivated practice, peer- and cross-age tutoring, and other forms of activity that can be facilitated by peers, aides, and/or volunteers. In a small group (e.g., two to six members) students have more opportunities to participate. In heterogeneous, cooperative learning groups, each student has an interdependent role in pursuing a common learning goal and can contribute on a par with their capabilities.

Three types of groupings that are common are:

- **Needs-Based Grouping:** Short-term groupings are established for students with similar learning needs (e.g., to teach or reteach them particular skills and to do so in keeping with their current interests and capabilities).
- **Interest-Based Grouping:** Students who already are motivated to pursue an activity usually can be taught to work together well on active learning tasks.
- **Designed-Diversity Grouping:** For some objectives, it is desirable to combine sets of students who come from different backgrounds and have different abilities and interests (e.g., to discuss certain topics, foster certain social capabilities, engender mutual support for learning).

All three types provide opportunities to enhance interpersonal functioning and an understanding of working relationships and of factors effecting group functioning.

Individualization and Personalization

Clearly, developmental differences among (and within) students must be accounted for in teaching. Such developmental variations are manifested as functional differences. Functional differences are accommodated through intervention strategies that match current *capabilities* in each area of development (i.e., cognitive, perceptual, motoric, language, social, emotional). This means designing instruction to fit areas in which development is observed as lagging and those in which development meets or surpasses expectations. For example, teachers commonly address developmental differences by modifying performance demands with respect to pace and quantity in carrying out assignments.

Matching individual differences in developmental capabilities plainly is important. However, overemphasis on capabilities, ignores the reality of individual differences in motivation. To emphasize this matter, our work at UCLA from the 1960s through to today, contrasts individualized instruction with the concept of personalized instruction.⁵

Personalized
instruction
accounts for
individual
differences in
both capability
and motivation

We define personalized instruction as accounting for individual differences in *both* capability and motivation. Furthermore, from a psychological perspective, we stress that the student's perception determines whether the instructional fit is good or bad. Given this, instruction is personalized only if the learner perceives it as such. *Thus, a basic teaching concern becomes one of eliciting a learner's perception of how well instruction matches her or his interests and abilities.* This has many fundamental implications for teachers.

For *motivated* learners, either individualized or personalized instruction can be quite effective. Often all that is needed when students are motivated is to provide a good match with their capabilities. For *unmotivated* learners, however, a first concern is their lack of motivation for classroom instruction and how to engage/re-engage their interest.

Unfortunately, personnel preparation for most school personnel has not included an indepth focus on personalizing learning. Moreover, discussions of personalized learning often leave the impression that the process is mainly about incorporating technological innovations. For the most part, the discussions also fail to place personalized learning within the context of other conditions that must be improved in classrooms and school wide to address factors interfering with student learning and performance.

Controversy About Current Policy for Personalization

Currently, a wide range of policy makers in the U.S., the United Kingdom, Canada, and beyond are embracing the concept of personalized learning. It is emphasized in the common core standards initiative, proposed model core teaching standards, the administration's 2010 National Education Technology Plan, and the Race to the Top guidelines. For example, the following was stressed at the SIIA-ASCD-CCSSO Symposium on [Re]Design for Personalized Learning:

- Educational equity is not simply about equal access and inputs, but ensuring that a student's educational path, curriculum, instruction, and schedule be personalized to meet her unique needs, inside and outside of school. Educational equity meets each child where she is and helps her achieve her potential through a wide range of resources and strategies appropriate for her learning style, abilities, and interests, as well as social, emotional, and physical situation.
- Personalized learning requires not only a shift in the design of schooling, but also a leveraging of modern technologies. Personalization cannot take place at scale without technology. Personalized learning is enabled by smart e-learning systems, which help dynamically track and manage the learning needs of all students, and provide a platform to access myriad engaging learning content, resources and learning opportunities needed to meet each students needs everywhere at anytime, but which are not all available within the four walls of the traditional classroom.
(<http://siia.net/pli/presentations/PerLearnPaper.pdf>)

For years, the term personalized instruction was not distinguished from individualized or differentiated instruction. Along with the distinctions, controversy has arisen. For example, Andy Hargreaves and Dennis Shirley critique David Hargreaves's approach to personalization as being rooted in the business world's idea of customization and too often used as a means to manage and market learning.⁶ They state:

“With customized learning, students access existing and unchanged kinds of conventional learning through different means—on site or off site, online or offline, in school or out of school, quickly or slowly. . . . [However] the nature of learning is not transformed into something deeper, more challenging, and more connected to compelling issues in their world and their lives.”

These educators stress that schools in the 21st century must “embrace deeper virtues and values such as courage, compassion, service, sacrifice, long-term commitment and perseverance.” Thus, while “customized learning is pleasurable and instantly gratifying,” they worry that it can become “just one more process of business-driven training delivered to satisfy individual consumer tastes and desires” and that overemphasizes the technology in the process of educating and socializing the young.

Despite ongoing controversy, few argue against the goal of personalization which is to make schools function better in addressing the diverse needs and interests students bring to school each day. There is also agreement that new technologies can be helpful to a degree in accomplishing the goal.

Grouping to Make Smaller Units out of Larger Classes

When done appropriately, grouping has many benefits. Aside from times when a learning objective is best accomplished with the whole class, there is virtue in creating small classes out of the whole. At a fundamental level, grouping enables turning classrooms with large enrollments into a set of simultaneously operating small classes. The aim is to group students in a variety of ways, as well as providing opportunities for individual activity. (Note this parallels the trend to turn schools with large enrollments into sets of small schools.)

The workgroup reporting in *High Schools of the Millennium* notes:

The structure and organization of a High School of the Millennium is very different than that of the conventional high school. First and foremost, [the school] is designed to provide small, personalized, and caring learning communities for students The smaller groups allow a number of adults . . . to work together with the students . . . as a way to develop more meaningful relationships and as a way for the teachers to better understand the learning needs of each student. . . .⁷

Collaborative teaming is key to establishing small groups

Making smaller units is achieved through collaboration between teachers and with student support staff. Not only can teaming benefit students, it can be a great boon to teachers. A good collaboration is one where colleagues mesh professionally and personally. It doesn't assure agreement about everything; it does require agreement about what constitutes good teaching and effective learning.

With respect to personalizing instruction, two or more staff can team to share the load and maximize use of their strengths. Such teaming may take the form of:

- **Parallel work in classrooms with small groups** – staff members combine their classes or other work to support each other. This may involve specific facets of the curriculum or different students. For example, they group the students for specific activities and work with those to whom each relates or can support in the best way).
- **Complementary work** – one team member takes the lead with the initial group lessons and another facilitates the follow-up activity.
- **Special Assistance** – while one team member provides basic instruction, another focuses on those students who need special assistance.

Teachers and support staff can work together to recruit and train others to join in the collaborative effort. Team collaboration may include aides and volunteers to help in creating small groupings and providing special assistance. Moreover, with access to the Internet and distance learning, the nature and scope of collaboration has the potential to expand in dramatic fashion.

Making Smaller Units in Large Classes

In the Winter 2000 issue of *Curriculum*, the Association for Supervision and Curriculum Development (ASCD) offered the following examples:

"First grade teachers Gail Canova and Lena Conlley ... use supported reading activities to help young learners of various abilities strengthen reading skills. On Mondays, (they) read stories to the entire class but break the class into groups according to challenge levels for the next three days. On Fridays, the whole class reviews the story once more to measure improvements and reinforce learning. To help students of differing abilities improve writing skills, (they) have established peer tutoring groups. In the groups, children read their work aloud and help one another with spelling and editing as they create their own books." . . .

"...Penny Shockly ... uses tiered assignments to engage her 5th graders at all levels of ability. When she begins the unit on perimeter, area, and volume, (she) first presents a short, hands-on lesson that defines the whole-class objective and lays the foundation for individual practice. Together, she and the students measure various sizes of cereal boxes so that everyone is clear about definitions and processes. Then, in groups of two, students receive activity packets. The more concrete learners receive packets with worksheets that direct them to measure their own desks and classroom furniture. In this highly structured activity, students practice calculating the perimeters, areas, and volumes of things they can actually see and touch. Shockley is on hand to offer help and to extend the activity, for those who are ready, by helping students find a way to arrange the desks so that they have the smallest possible perimeter. Other students with greater abstract reasoning skills receive packets that direct them to design their own bedrooms and to create scale drawings. They also calculate the cost and number of five-yard rolls of wallpaper borders needed to decorate their rooms. From catalogs, they select furniture and rugs that will fit into their model rooms. These details provide extensive practice, beginning with such tasks as determining how many square feet of floor space remain uncovered. This open-ended assignment offers higher-ability students an opportunity to extend their learning as far as they want to take it."

Rob Frescoln, a 7th grade science teacher, has students whose reading levels range from 2nd through beyond 7th grade. "To help all his students succeed with research papers, (he) provides science texts at several reading levels and uses mixed-ability groupings. Each of five students in a mixed-ability group might research a different cell part by gathering information from books at her own reading level. Then groups split up so that all students with the same cell assignment compare notes and teach one another. Finally, students return to their original groups so that every member of each group can report to the others and learn about the other cell parts. 'It's the coolest thing in the world to see a lower ability kid teaching a higher-ability kid what he's learned,' says Frescoln."

A high school social studies teacher, Leon Bushe uses mock trials to differentiate instruction according to interest, task, and readiness. "Dividing his class of 30 into three groups of 10, (he) gives each a court case involving a legal concept such as *beyond reasonable doubt*. Students choose whether to be lawyers, witnesses, or defendants -- whichever they feel most comfortable with. Every student has at least two roles because each trial group also serves as the jury for another trial group. To prepare for their roles, students must complete individualized reading and writing assignments, but they all learn the basics of trial by jury. One factor ... that heightens interest is that each jury deliberates in a fishbowl environment -- that is, the rest of the class gets to observe the deliberations but may not speak or interfere."

Benefits of Heterogeneous Grouping and Special Roles for Students

Every classroom is diverse to some degree. Diversity arises from many factors: gender, ethnicity, race, socio-economic status, religion, capability, disability, interests, and so forth. In grouping students, it is important to draw on the strengths of diversity. For example, a multi-ethnic classroom enables teachers to group students across ethnic lines to bring different perspectives to the learning activity. This allows students not only to learn about other perspectives, it can enhance critical thinking and other higher order conceptual abilities. It also can foster the type of intergroup understanding and relationships essential to establishing a school climate of caring and mutual respect. And, of course, personalization requires an appreciation of diversity and planning ways to appropriately accommodate individual and group differences.

In all forms of grouping, approaches such as cooperative learning and technological aids are relevant. Besides the mutual benefits students get from cooperative learning groups and other informal ways they help each other, formal peer programs can be invaluable assets. Students can be taught to be peer tutors, group discussion leaders, role models, and mentors. Other useful roles include: peer buddies (to welcome, orient, and provide social support as a new student transitions into the class and school), peer conflict mediators, and much more. Student helpers benefit their peers, themselves, and the school staff, and enhance the school's efforts to create a caring climate and a sense of community.

As teachers increasingly open their doors to others, assistance can be solicited from tutors, resource and special education teachers, pupil services personnel, and an ever widening range of volunteers (e.g., tutors, peer buddies, parents, mentors, and any others who can bring special abilities into the classroom and offer additional options for learning). And, of course, team teaching offers a potent way to expand the range of options for personalizing instruction.

Learning Supports

For many students, personalized classroom instruction is key to a good instructional match. Such an approach is an essential ingredient in preventing learning, behavior, and emotional problems. However, for some students, also bringing learning supports into the classroom and school-wide are necessary to enable learning.⁸ Such supports address barriers to learning and teaching and re-engage disconnected students. Learning supports are fundamental to reducing misbehavior, suspensions, expulsions, grade retention, referrals to special education, and dropouts.

Individual Learning Supports

Individual special assistance is provided in the classroom and in some instances outside the classroom. Any student who is not learning as well as *most* others in the classroom is a candidate for such learning supports. The first criteria for offering a student special assistance are straightforward indications of learning, behavior, and emotional problems.

It is particularly poignant to see a student who is working hard, but learning little, retaining less, and clearly needs special help. A bit harder to identify may be those doing mostly satisfactory work but not quite performing up to standards in one area of instruction.

Students who are disruptive or harmful to self and/or others almost always are readily identified, as are those who appear to be extremely disinterested and disengaged. *Most teachers and many parents have little difficulty identifying students who need special assistance. More difficult is determining what type of assistance to provide and how to provide it.*

Special assistance for a student in the classroom combines with personalized instruction as a second step in a sequential approach to addressing learning, behavior, and emotional problems. Such assistance is an essential aspect of revamping classroom systems to address the needs of *all* learners.

Classroom-based special assistance and other forms of individual student and family assistance often only require extending general problem solving strategies. Sometimes, however, more specialized interventions are needed, including referrals to community health and social services. In either case, the hope is that the interventions will be personalized, enhance the well-being of the individual involved, and will aid the teacher's efforts to improve the match between instruction and the student's motivation and capabilities.

School-Wide Learning Supports

Learning supports expand school-wide to encompass five other arenas that fit along a continuum of interventions. The continuum is designed to

- promote positive development and prevent problems
- intervene as early after the onset of problems as is feasible
- provide special assistance for severe and chronic problems.

The five additional school-wide arenas for addressing barriers to learning and teaching at a school are:

- *Supporting transitions* (e.g., assisting students and families as they negotiate hurdles to enrollment, adjust to school, grade, and program changes, make daily transitions before, during, and after school, access and effectively use supports and extended learning opportunities, and so forth)
- *Increasing home involvement and engagement* (e.g., increasing and strengthening the home and its connections with school)
- *Responding to, and where feasible, preventing school and personal crises and traumatic events* (including creating a caring and safe learning environment and countering the impact of out-of-school traumatic events)
- *Increasing community involvement, engagement, and support* (e.g., outreach to develop a greater community support from a wide range of entities. This includes agency collaborations and use of volunteers to extend learning opportunities and help students-in-need.)
- *Facilitating student and family access to effective services and special assistance* (on campus and in the community as needed).

Schools need a unified and comprehensive system of learning supports

Combining the continuum with the six arenas provides a matrix illustrating a unified, “big picture” intervention framework for student and learning supports. The matrix guides rethinking and restructuring of daily work to enable learning at a school. It is especially useful as an aid in mapping and analyzing resources, identifying gaps and redundancies, enhancing coordination and integration of resources, and developing a unified, comprehensive, systemic, and equitable approach. Effectively implementing the framework facilitates adherence to the principle of using the least restrictive and nonintrusive forms of intervention required to appropriately respond to problems and accommodate diversity.

Focusing on More than the Most Severe Problems

Currently, the tendency in schools to focus on the most severe problems (e.g., diagnosable disabilities) skews the focus of intervention so that too little is done to prevent or at least intervene early after problems appear. Classroom and school-wide learning supports extend the range of interventions for enabling academic, social, emotional, and physical development and ameliorate learning, behavior, and emotional problems. In doing so, the aim is to prevent the majority of problems, deal with another significant segment as soon after problem onset as is feasible, and end up with relatively few students needing specialized assistance and other intensive and costly interventions.

Concluding Comments

While safeguarding against the evils of tracking, school improvement policy and practice must attend to the problem of effectively matching instruction to learners in classroom settings. This requires appropriate grouping – that is, grouping and regrouping students, flexibly and regularly, based on individual interests, needs, capabilities, and for the benefits that can be accrued from diversity.

Of course, care must be taken to minimize the malevolent cycle of low expectations and social stigmatizing and to maximize equity of opportunity for success at school and beyond. To these ends, we have not only highlighted the role of personalized instruction, but the need to directly address factors interfering with learning and teaching through development of a unified, comprehensive, systemic, and equitable system of learning supports in the classroom and school-wide.

Unfortunately, analyses of school improvement policy and planning underscores how far away most schools are from helping teachers and student support staff develop potent systems for differentiating instruction and providing learning supports. In part, these deficiencies stem from inequities in resource allocation and in part from limitations related to capacity building. And they represent major policy failures.

As federal, state, and local school improvement policy discussions progress, decision makers need to elevate these fundamental concerns to a prominent place on the agenda. To do less is to make a mockery of calls for reducing the achievement gap and increasing attendance and graduation rates and a sham of the hope that schools will play a significant role in enhancing equity of opportunity and student well-being.

Notes

¹One of the most influential analyses condemning tracking was done by Jeannie Oakes. The work entitled *Keeping Track, How Schools Structure Inequality* was published in 1985 by Yale University Press.

²See Part II of the 2013 Brown Center Report on American Education prepared by Tom Loveless entitled *The Resurgence of Ability Grouping and Persistence of Tracking*.
<http://www.brookings.edu/~media/research/files/reports/2013/03/18%20brown%20center%20loveless/2013%20brown%20center%20report%20web.pdf>

³From a reciprocal determinist view of behavior and learning, the concepts of match or fit permeate psychological and educational research on person-environment transactions. For a contemporary teaching perspective, see the 8th edition of *Models of Teaching* (2008) by Bruce Joyce, Marsha Weil, and Emily Calhoun. For a sociological perspective, see “Designing instruction and grouping students to enhance the learning of all: New hope or false promise? By Adam Gamoran in *Frontiers in Sociology of Education* (Maureen Hallinan, editor)

⁴For recent discussions on differentiated instruction, see the February 2012 issue of *Educational Leadership* published by ASCD.

<http://www.ascd.org/publications/educational-leadership/feb12/vol69/num05/toc.aspx>

⁵For example, see:

Adelman, H.S. (1970). Learning to read in the classroom. *Reading Teacher*, 24, 257-260, 275.

Adelman, H. S. & Taylor, L. (1977). Two steps toward improving learning for students with (and without) learning problems. *Journal of Learning Disabilities*, 10, 455-461.

Adelman, H.S., & Taylor, L. (2006). *The implementation guide to student learning supports in the classroom and schoolwide: New directions for addressing barriers to learning*. Thousand Oaks, CA: Corwin Press.

Center for Mental Health in Schools (2012). *Personalizing Learning and Addressing Barriers to Learning*. Los Angeles: Author.

<http://smhp.psych.ucla.edu/pdfdocs/personalizeI.pdf>

⁶See:

Hargreaves, A. and D. Shirley. 2009. *The Fourth Way: The Inspiring Future for Educational Change*. Thousand Oaks, Calif: Corwin Press.

Hargreaves, D. (2006). *Personalising Learning 6: The Final Gateway: School Design and Organisation*. London: Specialist Schools and Academics Trust.

⁷American Youth Policy Forum (2000). *High Schools of the Millennium Report*. Washington, DC: Author. http://www.aypf.org/publications/HSchools_round_3.pdf

⁸For detailed discussion of learning supports, see:

Adelman, H.S., & Taylor, L. (2006). *The implementation guide to student learning supports in the classroom and schoolwide: New directions for addressing barriers to learning*. Thousand Oaks, CA: Corwin Press.

New Directions for Student and Learning Supports National Initiative –
<http://smhp.psych.ucla.edu/summit2002/ndannouncement.htm>