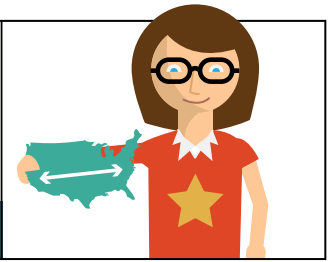


REDESIGNING SCHOOLS

MODELS TO REACH EVERY STUDENT WITH EXCELLENT TEACHERS

SUBJECT SPECIALIZATION (ELEMENTARY)



The best teachers teach one or two priority subjects, leaving other subjects and many noninstructional tasks to teammates. A likely combination would be subject pairs: 1) math/science and 2) language arts/social studies. A third set of adults—learning coaches, teaching assistants, or other designated adults—supervise students during homeroom, other unstructured time, and transitions, and they cover most administrative work and other noninstructional tasks. All collaborate as a team to ensure student learning and development. Higher pay for excellent teachers can be funded by lower pay for the learning coaches/assistants and elimination of some non-classroom instructional specialist positions. **Estimated Reach Extension Effect:** 100%–300% more students reached with excellent teachers. **Note:** Subjects for Specialization will vary based on school priorities and available teachers; the math/science and language arts/social studies pairs are just one example. For more on this model, see opportunityculture.org/reach/subject-specialization-in-person/. Based on early experience and data, we recommend using Specialization in combination with [Multi-Classroom Leadership](#).

MORE DETAIL:

The Subject Specialization model enables excellent elementary teachers to reach more students by focusing on their best subjects and teaching those subjects to two or more classes of students, rather than just one. Teachers save time needed for expanded student reach by narrowing their subject coverage and by utilizing a third set of adults who cover other duties.

Students who would not normally have the best teachers in core subjects can have them in this model, in class sizes no larger than they are today.

Both well-performing and struggling schools can benefit from this model. Schools with a typical number of excellent teachers (or more) may be able to close small but persistent gaps completely, without diminishing results for other students. Struggling schools can produce catch-up gains on a deliberately planned schedule by helping the best available teachers reach designated students each year, again without diminishing outcomes for other students.

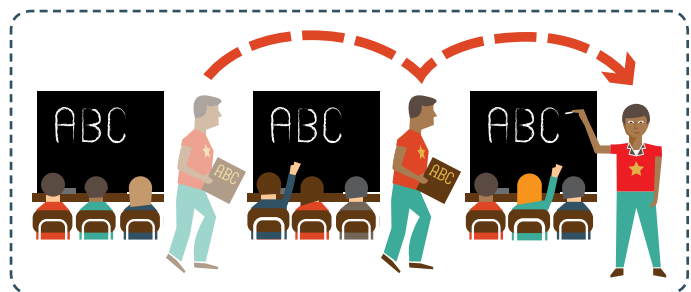
Schools may implement this model in some grades or subjects but not others, or across whole schools. This model also may allow teachers who are excellent in one core subject pair (e.g., math/science), but not the other (e.g., language arts/social studies) to produce excellent results by focusing on their areas of strength.

Schools may choose to have all teachers specialize by subject regardless of their prior effectiveness, to allow all teachers to focus their efforts on a narrower range of content.

By specializing, teachers may reach more students while maintaining or gaining planning time. For example, elementary teachers in most schools today spend about eight of their nearly 32 instructional hours weekly on math and science combined. Therefore, in the elementary Subject Specialization model, excellent math/science teachers can teach up to four classes. However, by limiting reach to three classes of students, these teachers may gain up to eight in-school planning hours weekly. A second set of excellent teachers could teach two classes of combined language arts and social studies, on which teachers now spend about 14 hours weekly, potentially gaining up to four planning hours weekly.

Classroom specialists and the learning coaches and teaching assistants must collaborate to monitor and ensure students' overall development—their academic, social, emotional, behavioral, and time-management skills.

Role and Schedule Changes for Excellent Teachers: Teachers who produce excellent results in one or two related subjects specialize in those subjects. Schools take other subjects and many administrative and other noninstructional tasks off these teachers' workloads. Their schedules are focused entirely on planning and teaching the designated subject(s), monitoring student learning, and collaborating with other teachers and staff to ensure student learning and development. They either rotate from one classroom to the next on a schedule, or students rotate through their classrooms on a schedule, as in most secondary schools today.



New Roles for Other Staff:

- * When schools are organized using this model, a third role arises for learning coaches, teaching assistants, or other designated adults. These team members do not have instructional duties, but instead supervise students during homeroom, lunch, recess, other unstructured time, and transitions, and they cover administrative work and other noninstructional tasks. These learning coaches or teaching assistants must have strong interpersonal and behavior management skills to develop students' social and emotional skills when students are not with subject-specialized teachers. They also must collaborate with the core academic and other teachers (art, music, languages, etc.) to communicate important information about students' overall development.
- * Some teachers who specialize but who have not achieved prior excellent outcomes may improve with a narrower subject range.
- * When excellent teachers reach more students successfully, schools may be able to reduce the number of non-classroom instructional specialist positions for remedial and advanced instruction. Some non-classroom instructional specialists may be candidates for specialized classroom teaching roles.
- * Tutors may provide small-group and individual instruction at the direction of specialized teachers, freeing excellent teachers to increase the number of students they reach effectively.

Impact on Students: Under this model, far more students have the best core subject teachers already available in a school. This can benefit advanced, average, and struggling students equally, depending on how students are assigned to the excellent, core specialized teachers who extend their reach.

Scheduling Changes: Specialized teachers work with multiple classes of students. Schools must coordinate schedules across affected classrooms, regardless of whether the specializing teachers or students switch rooms.

Math teachers may be able to extend their reach further than language arts teachers in schools that maintain the current time allocations among subjects. Scheduling and staffing levels will need to accommodate differences in reach accordingly (e.g., three

or four classes for each math/science teacher and two classes for each language arts/social studies teacher).

Pay Changes: Specialized teachers can earn substantially more. Schools can pay even more to those who both reach more students and achieve excellent outcomes for those students. Learning coaches and teaching assistants are paid less than certified teachers, because these roles do not require high levels of academic content skill and may require fewer work hours than instructional roles.

Cost Savings To Be Shared by Excellent Teachers and School: This model can be budget neutral. Schools can save money by paying less for learning coaches and teaching assistants and by reducing non-classroom instructional specialist positions. They can then share that financial benefit with teachers who increase their reach by specializing in core subjects. See details about pay and budget effects in *Financial Planning for Elementary Subject Specialization* and the *Financial Planning Summary*, both at <http://opportunityculture.org/reach/pay-teachers-more/>.

Changes to Class/Group Size: None necessary.

Facilities Changes: None.

Technology Needs: None.

Estimated Reach Effect Calculation Assumptions: Currently, elementary teachers in most schools spend about eight of their nearly 32 instructional hours weekly on math and science, and about 14 hours on language arts and social studies (out of an average workweek that is over 50 hours). Teaching three classes of math and science adds up to 24 hours weekly, which leaves up to eight in-school hours for additional planning for the two extra classes. Some schools may choose to have math and science teachers teach four classes. Teaching two language arts and social studies classes amounts to 28 hours weekly, which leaves up to four additional in-school hours to monitor and plan for the additional class of students. Thus, reach increases vary from 100% to 300% more than a typical one-class-one-teacher arrangement.

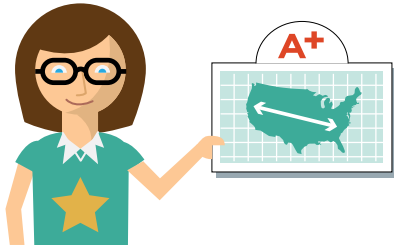
CRITICAL IMPLEMENTATION DECISIONS, AMONG OTHERS, INCLUDE:

- * Which **teachers** will teach more classes of math/science and language arts/social studies? Consider past learning results in each subject and efficiency in monitoring learning and in planning instruction.
- * **How many classes** will each specialized teacher teach? At first? Later goal?
- * Which **students** will be reached first if not enough excellent specialized teachers are available for all? Consider the differ-



A Teacher's Impact =
Student Outcomes x
Number of Students Reached

In an **Opportunity Culture**, all teachers have career opportunities dependent upon their excellence, leadership, and student impact. Advancement allows more pay and greater reach.



ing populations and needs of students who are struggling, advanced, learning English, or who have special needs. Consider which students will benefit most, as well as the overall student mix in classrooms and the demonstrated strengths of available teachers with differing students.

- * What are the specific **job expectations for learning coaches or teaching assistants** (and what titles will your school use?) Will people in this position collaborate with subject teachers to ensure students' social, emotional, and behavioral development? What administrative and noninstructional duties will each coach or assistant perform, and for which specializing teachers?
- * Does the allocation of **non-classroom instructional specialists** need to change? Which non-classroom instructional specialist roles can be eliminated? Might some switch roles (e.g., instructional specialist becomes classroom specialist)?
- * How will **pay** change for specialized teachers? Others? How much pay will be contingent on outcomes?
- * For existing schools changing to specialist instruction (rather than new schools), consider **options for transitioning** non-core and non-classroom specialist roles. These may include: voluntary attrition, early retirement, voluntary shifting of current teachers into alternative positions, or (where warranted) dismissal of ineffective teacher(s).
- * How will the change be **communicated** to staff and other stakeholders to convey the value of specialization to students and teachers?
- * What changes in policies and practices related to **hiring, retention, dismissal, professional development, leadership, and teacher evaluation** are needed?

EXAMPLE: SUBJECT SPECIALIZATION (ELEMENTARY)

- * Previously, four teachers each taught all subjects in self-contained elementary classrooms.
- * Teacher A is the best math/science teacher, and will teach four math/science classes, extending reach by 300%. Previously, teachers spent eight hours per week per class on math and science. In this example, Teacher A spends 32 hours per week teaching math and science only.
- * Teachers B and C are the best available language arts teachers. They will teach two classes each of language arts/social studies, extending their reach by 100%. They will also cover homeroom and dismissal time for some students.
- * Teacher D retires, and this position is replaced by a learning coach. The person in this position focuses on homeroom, lunch, recess, transitions between classrooms, and administrative duties, replacing all of this time for Teacher A, and some of it for Teachers B and C.
- * Teacher A is relieved of homeroom, parent communications unrelated to individual students, and administrative duties. Teachers B and C and the new Learning Coach D take these duties from A.
- * Higher pay for Teachers A, B, and C is enabled by lower pay for Learning Coach D and fewer non-classroom specialists.
- * Class size does not change (see table on the following page).

OPPORTUNITY CULTURE PRINCIPLES

Teams of teachers and school leaders must choose and tailor models to:

1. Reach more students with excellent teachers and their teams
2. Pay teachers more for extending their reach
3. Fund pay within regular budgets
4. Provide protected in-school time and clarity about how to use it for planning, collaboration, and development
5. Match authority and accountability to each person's responsibilities



- * Alternative versions of this model are possible with larger groups of teachers. For example, a school could extend Teacher A (math/science) to three classes only, leaving one-fourth of former instructional time for additional planning.
- * Every student now has the best available teachers in core subjects, and multiple adults with whom they can bond. If con-

cerns arise, teachers can confer with other teachers who know each child. They all work as a team to develop the whole child.

- * At scale, this model would allow reaching every elementary child with in-person, top-25% math/science teachers, without class-size increases.

	TEACHER AND STUDENT TIME	Weekly In-School Hours					Instructional Hours	
		In Core and Other Instruction (32 Hours Total)*						
BEFORE	Teachers A–D:	A: All Subjects	B: All Subjects	—	C: All Subjects	—	D: All Subjects	
	Student Class #							
	1	32						32
	2		32					32
	3				32			32
4						32	32	
AFTER	Teachers A–C and Learning Coach D	A: Math/Sci.	B: LA/SS	B: Other	C: LA/SS	C: Other	D: Other**	
	Student Class #							
	1	8	14				10	32
	2	8	14	4			6	32
	3	8			14	4	6	32
	4	8			14		10	32
	Teacher Hours:	32	32 Total		32 Total		32	

*Data of actual hours, rounded, from National Center for Education Statistics, 2007–08 *Schools and Staffing Survey*. Available: <http://nces.ed.gov/surveys/sass/index.asp>. Total teacher work time, both in and out of school, is 51–54 hours. Data indicate that public school teachers spend an average of 31–32 hours per week on instruction, and students spend about 33 hours per week at school. Here we use 32 hours to show a simplified example of how time use can change to reach students with the strongest teachers in core subjects.

**Teacher D’s role in the new model can be changed to a new position (e.g., learning coach), or it can be eliminated and re-created through voluntary attrition, retirement, layoff, or dismissal.

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