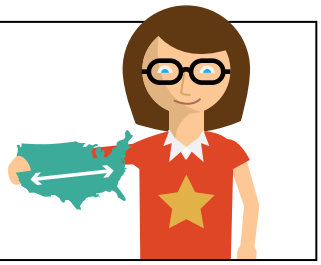
# REDESIGNING SCHOOLS

## MODELS TO REACH EVERY STUDENT WITH EXCELLENT TEACHERS

### IN-PERSON ROTATION + SUBJECT SPECIALIZATION (ELEMENTARY)



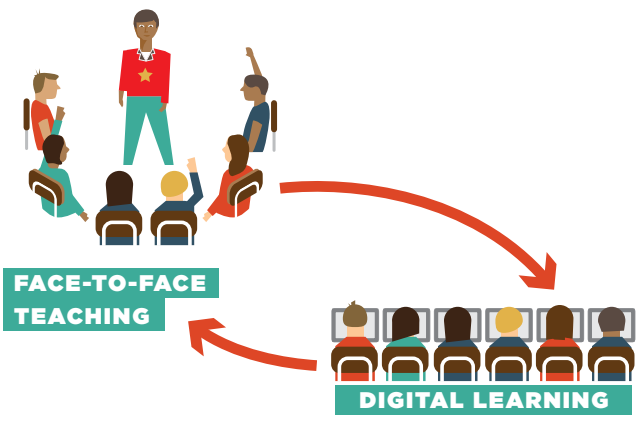
Students spend 25%–50% of their in-school time engaged in personalized digital learning, replacing a portion of excellent, in-person teachers' whole-group instruction and other types of teaching. Teachers specialize in core subject pairs: math/science or language arts/social studies. Students rotate on a fixed schedule between digital instruction and face-to-face learning with the subject teachers, as chosen and directed by excellent teachers. To extend their reach, excellent teachers use freed time to teach additional classes, focusing primarily on personalized and enriched portions of instruction in their designated subjects. Digital lab monitors supervise students during digital learning time, and tutors also may work with students individually and in small groups. Subject teachers, monitors, and others collaborate as a team. **Estimated Reach Extension Effects:** Excellent elementary specialists reach 100%–700% more students, varying with the amount of digital instruction and the amount of planning and collaboration time preserved for teachers. For more on this model, see opportunityculture.org/reach/in-person-rotation-subject-specialization/. ***Note:*** Based on early experience and data, we recommend using these direct-reach models in combination with Multi-Classroom Leadership at the elementary and secondary levels.

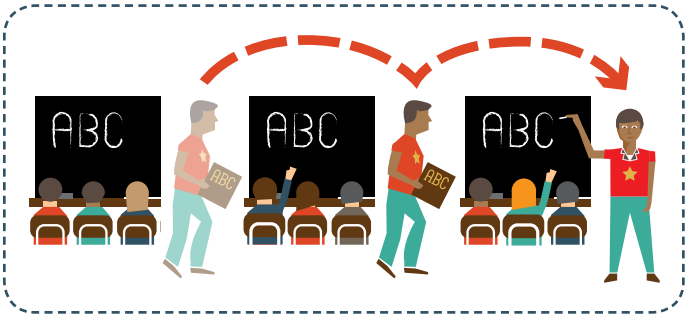
### MORE DETAIL:

This model enables excellent teachers to reach more students by replacing enough of their instructional time that they may teach one or more additional classes in their specialties, swapping some teaching time with technology-based instruction ("Time-Technology Swap"). Specialization allows teachers who are excellent in one core subject pair both to focus on their best subjects and to reach a larger number of students than they would without specialization.

Students who would not otherwise have excellent teachers can now have them, without reducing the personalized and enriched portions of teachers' instruction that students experience.

Schools of many kinds will find this model useful for reaching more students with excellent teachers and letting those teachers increase their impact by focusing more of their instructional time on their best subjects and teaching roles. Schools may implement this model in some grades or subjects but not others, or across whole schools. Schools may choose to have all teachers swap a portion of their time with digital instruction regardless of prior effectiveness, to free all teachers' time for collaboration and planning, and/or to free funds to pay teachers more.




Today, teachers in most schools spend a portion of their instructional time covering basic knowledge and skills, content that is repeated from year to year and varies little among students. By letting students learn basic material digitally, teachers reduce this aspect of instruction in their schedules. Students can have just as much time with the teacher on personalized follow-up and applying their knowledge to develop higher-order thinking skills, but more students will have teachers who excel in these challenging parts of instruction.

This model relies on having solid digital instruction in core skills and knowledge in the reach-extended subjects, and lab monitors who are able to supervise students during digital learning time. Teachers can be paid more, and technology can be funded, by

paying lab monitors less, having the monitors supervise larger groups, and possibly by reallocating some funds for instructional specialists.

In-person teachers remain fully accountable for student learning outcomes. They should be empowered to make or recommend changes in digital instruction. In the best versions, digital components are more personalized than whole-group instruction, reflecting the current mastery of each student. Digital learning also includes frequent assessments and data that are reported to teachers for targeted follow-up. Digital instruction may include smart software, videos of the best teachers in a district, state, or the nation, or videos of the in-person teachers. See more about excellent digital instruction at http://opportunityculture.org/reach/digital-instruction/.

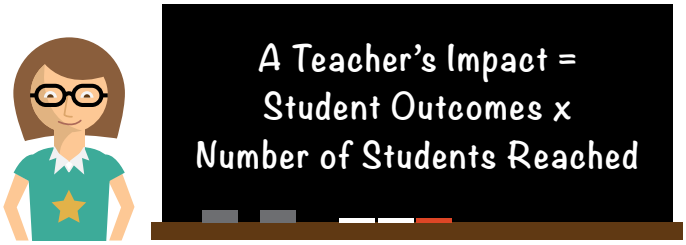
**Role and Schedule Changes for Excellent Teachers:** Excellent teachers teach more classes of students, but they spend less time on whole-group instruction and basic knowledge and skills. Teachers use student learning data from digital instruction to plan individual or small-group instruction. They spend more of their time on personalized follow-up and developing students' higher-order thinking skills, with more students. Teachers teach only their designated subject specialties and may be able to increase their skill by teaching a narrower range of subjects.

Schools may craft schedules to include planning and collaboration time for teachers when students are in the digital lab and other activities.

This model may be combined with team-teaching or role differentiation in some classrooms—when two or more teachers play differing roles and help each other teach across the four core subjects—to induct new teachers or to let any teacher try different subjects before specializing.

**New Roles for Other Staff:** Digital lab monitors supervise students while they are engaged in digital instruction, and may supervise students who are working with tutors or on projects in the same room.

Some teachers who specialize but who have not achieved prior excellent outcomes may improve by teaching a narrower subject range and by using some time freed by digital instruction to collaborate with and learn from the most effective teachers.




When excellent teachers reach more students successfully, schools may reduce the number of non-classroom instructional specialists who provide remedial and advanced instruction, freeing funds that might be used to pay excellent teachers more. Optional positions may increase the number of students excellent teachers can reach effectively. Tutors and teaching assistants may contribute to excellence, by following the lead of excellent teachers and playing supporting roles.

- Tutors may provide small-group and individual instruction at the direction of excellent teachers, during digital instruction time or at other times. Tutors may work in person or be remotely located when necessary.
- Teaching assistants may relieve teachers of administrative work.

**Impact on Students:** Students who would not otherwise have excellent teachers benefit directly with higher learning progress and other improved outcomes that these teachers produce. Time with the teachers is primarily spent on higher-order thinking skills and personalized follow-up to digital knowledge and skill instruction. Students spend less time in whole-group instruction that is not differentiated. Students have teachers who grow in their skill by teaching a narrower range of subjects in greater depth.

During digital learning time, students at all levels of learning can spend more of their time with digital materials that meet them at their current level of mastery. Students who are ahead can pursue advanced instruction. Students who are behind or struggling with a discrete unit can repeat digital lessons and complete additional practice until they understand. Teachers can follow up during face-to-face instruction when students need more help.

**Scheduling Changes:** Students rotate between time in the digital lab and face-to-face instruction on a fixed schedule. Coordinating the digital lab and classroom-subject instruction schedules is a critical aspect of organizing this model. Tutoring can be sched-

uled during the time that students are in the digital lab. Schools also may reserve a portion of teachers' freed time for additional planning and collaboration. The blocks of time needed to create a workable rotation will depend on the percentage of time students spend with digital learning (see Cost, Reach Effects, and Example sections below).

**Pay Changes:** All teachers who teach more students can be paid more, because digital lab monitors are paid less and can supervise several (e.g., two to four) classes of students at once. Schools can pay even more to those who both reach more students and achieve excellent outcomes for those students. Reduction of non-classroom instructional specialists may also enable higher pay for teachers who extend their reach.

**Cost Savings To Be Shared by Excellent Teachers and School:** This model can be budget neutral. Schools can save money by paying less for digital lab monitors than classroom teachers, and by reducing the number of non-classroom instructional specialists. Digital lab monitors can supervise multiple classrooms of students if the school has lab rooms large enough to accommodate two or more classes of students. They can then share that financial benefit through higher salaries for teachers who successfully reach more students. Additional costs may include investments in new technology and pay for new tutor positions.

**Changes to Class/Group Size:** None in classrooms. Students are in larger groups during digital learning time.

**Facilities Changes:** Digital learning labs must have an Internet connection and ideally are in rooms large enough to hold several classes of students simultaneously working at computers. New facilities may save funds by building fewer, larger rooms for digital learning labs.

**Technology Needs:** Digital learning labs must have Internet connectivity and necessary hardware and software. If teachers will be recording their own lessons, recording and playback equipment will also be necessary.

**Estimated Reach Effect Calculation Assumptions:** See table below.

## Additional Students Reached with Differing Time on Digital Learning and Staffing Changes

| Student Time on Digital Learning | Class Size* | Maximum # of Classes Per Day Per Teacher** | | Maximum Additional % of Students Reached with Rotation and Subject Specialization*** | |
|---|---|---|---|---|---|
| | | L. Arts/ Soc. Studies | Math/Science | L. Arts/ Soc. Studies | Math/ Science |
| 1/2 | 24 | 4 | 8 | 300% | 700% |
| 1/3 | 24 | 3 | 6 | 200% | 500% |
| 1/4 | 24 | 2 | 5 | 100% | 400% |

*Class size is current U.S. average. Students are with digital lab monitors when not with teachers.
**Assumes in-school learning time on math/science (8 hours/week) and language arts/social studies (14 hours/week) stays near national averages, including digital learning.
***This shows the maximum additional percentage of students each teacher can teach beyond one classroom.


Combining this model with team-teaching/role specialization allows schools to have specialization in some classrooms but not all, if desired.

### CRITICAL IMPLEMENTATION DECISIONS, AMONG OTHERS, INCLUDE:

- In **which subjects or subject combinations** may teachers specialize?
- Will some teachers teach in **teams, covering differing roles** in the same subjects? Or will all teachers specialize in subjects?
- Which **teachers** will extend their reach? Consider past learning results in particular subjects and efficiency in monitoring learning and in planning instruction.
- What roles will remain for **other teachers** whose reach is not extended? How will **new teachers** enter teaching roles in the school?

- Will teachers need **training or additional tools** to integrate classroom learning experiences with digital instruction?
- How will **data from digital instruction** inform classroom learning experiences?
- **How many classes of what size** will each extended teacher teach? At first? Later goal?
- What **instructional content** will teachers cover, and what will be addressed with digital instruction? Will this be uniform or semi-structured, or may teachers decide?
- To what extent and in what ways will teachers be empowered to make or recommend **changes to digital instruction?** Consider teachers' roles vetting and selecting content and interacting with software to align digital lessons with students' individual needs.
- Will some noninstructional time also be reallocated? If so, what?
- How much **time will students spend** in digital instruction? Consider age-appropriate percentages for students that also work for scheduling teachers, digital materials, and facilities.
- How many students will be in the **digital learning lab** at one time? Will tutors be scheduled during this time? By whom?
- Will all digital learning occur **at school, or will homework time be included?** Consider current homework completion rates and students' home access to hardware and high-speed Internet.
- How will **student scheduling** changes be integrated with other classes and activities?
- When will teachers have **time to monitor** student learning, **plan** instruction **and collaborate** with teammates?
- Which **students** will be included? Consider which students will benefit most, as well as the student mix across classrooms, appropriateness of available digital instruction for students with different needs, and the demonstrated strengths of available teachers with differing students.
- How will the allocation of **teacher aides and non-classroom specialists** change? Will an aide be needed to help teachers replace noninstructional time with more instructional planning? Can some non-classroom instructional specialist roles be eliminated? Might some specialists shift to classrooms?
- How will **pay** change for teachers who reach more students? Digital lab monitors? What, if any, portion of pay will be contingent on student outcomes?
- What **scale of change** is needed to fund digital labs and reduce the number of non-classroom specialists?
- For existing schools changing to time-technology swaps (rather than new schools), consider **options for transitioning** positions that are eventually eliminated. Voluntary attrition, early retirement, voluntary shifting of current teachers into alternative positions, or (where warranted) dismissal of ineffective teacher(s) are some options.
- What, if any, changes in **facilities** are necessary? Are larger rooms for digital labs possible in existing buildings?
- How will the changes be **communicated** to convey the value to teachers and children?
- What changes in policies and practices related to **hiring, retention, dismissal, professional development, leadership and teacher evaluation** are needed?

### EXAMPLE: ELEMENTARY ROTATION + SPECIALIZATION, 1/4 TIME ON DIGITAL LEARNING*

In this model, each team of three subject specialists teaches four classes of 24 students each (Classes 1 through 4). Two specialists teach language arts and social studies, and one teaches math and science.

- Math and science instruction take approximately one-fourth of students' in-school learning time, and language arts and social studies take approximately half of learning time, in line with actual time reported by teachers in schools.
- The school day is divided into four 1.2-hour blocks of academic time (with other times during the day for special subjects, lunch, recess, and other activities).
- Each day, each class has a 2.4-hour block with its language arts/social studies teacher and a 1.2-hour block with the math/science teacher.
- When students are not with a subject specialist, they are under the supervision of a digital lab monitor, who oversees 2 to 4 classes of students.
- Students work in the digital lab to acquire knowledge and skills, with personalized pacing according to their mastery of the content. Students spend 1/4 of their language arts/social studies and math/science time in digital learning.
- During lab time, some students receive tutoring.
- When teachers are with students, they reinforce major concepts and skills, focus on higher-order thinking, and provide personalized follow-up on knowledge and skills by working with small

* Hours based on National Center for Education Statistics *2007-08 Schools and Staffing Survey*. Available: http://nces.ed.gov/surveys/sass/index.asp. Average actual instructional hours per week: 31–32. Average actual total teacher work hours per week: 51–54.

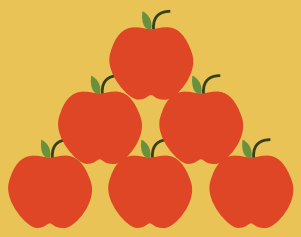
groups of students. Students may work individually or in teams on projects and short-but-complex assignments.

- Class size and the time students have with a teacher for enriched learning opportunities do not change. Because their students spend one-fourth of their time in the digital lab, teachers have 8 hours per week of noninstructional time during school hours, which they can use for collaboration, planning, coaching peers, or other purposes.
- Specializing teachers earn more. Digital lab monitors earn less but work fewer hours.
- In this example, language arts and social studies teachers reach 100% more students each; math and science teachers reach 300% more.
- Teachers can focus on the most engaging aspects of teaching.
- New teachers entering the school may work as team teachers under the leadership of a proven excellent teacher until their results meet the school's standard (see Multi-Classroom Leadership at opportunityculture.org/reach/school-models/ for more detail on this option).

### 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**




## Acknowledgements

We are grateful for the feedback and input of teachers from Teach Plus and Educators4Excellence, the Opportunity Culture Advisory Team, and our other advisors.

This publication was made possible in part by support from Carnegie Corporation of New York, the Bill & Melinda Gates Foundation, and The Joyce Foundation. The statements made and views expressed are solely the responsibility of Public Impact. Learn more at OpportunityCulture.org.





Please cite this report as: Public Impact. (2012). *Redesigning schools: Models to reach every student with excellent teachers — In-person rotation + subject specialization (elementary)*. Chapel Hill, NC: Author. Retrieved from http://opportunityculture.org/wp-content/uploads/2012/04/In-Person_Rotation_Subject_Spec_Elem_School_Model-Public_Impact.pdf




BUILDING AN OPPORTUNITY CULTURE FOR AMERICA'S EDUCATORS

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