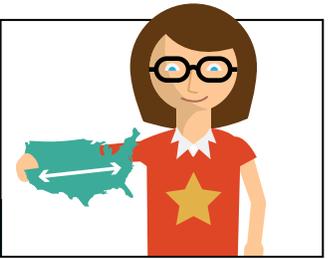


# REDESIGNING SCHOOLS

MODELS TO REACH EVERY STUDENT WITH EXCELLENT TEACHERS

## IN-PERSON ROTATION (SECONDARY)



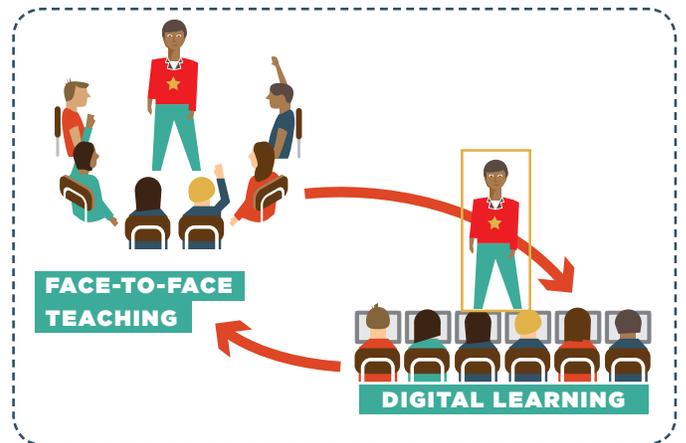
**M**iddle and high school students spend up to 50% of their in-school time engaged in personalized digital learning, replacing a portion of excellent, in-person teachers' whole-group instruction and other types of teaching. Students rotate on a fixed schedule between face-to-face learning with teachers and digital instruction, as chosen and directed by excellent teachers. To extend their reach, excellent teachers use their freed time to teach additional classes, focusing primarily on personalized and enriched portions of instruction in their designated subjects. During digital learning time, lab monitors supervise students, and tutors also may work with students individually and in small groups. Teachers, monitors, and others collaborate as a team. (Where permitted by district policy, schools may allow students to work from home, a community center, or other off-campus locations instead of a digital learning lab, while also providing such a lab for students who need it.) **Estimated Reach Extension Effects:** Excellent teachers reach up to 100% more students. Secondary teachers may extend their reach in any number of class periods, ranging from just one class to all of their classes, with limits based on the feasible student load and the percentage of students' digital time. For more on this model, see [opportunityculture.org/reach/time-tech-swaps-rotation-in-person/](http://opportunityculture.org/reach/time-tech-swaps-rotation-in-person/). **Note:** Based on early experience and data, we recommend using Rotation in combination with Multi-Classroom Leadership at the **elementary** and **secondary** levels.

### MORE DETAIL:

In-Person Rotations at the secondary level enable excellent teachers to reach more students by replacing enough of their instructional time that they may teach two classes in a given class period, swapping some teaching time with technology-based instruction ("Time-Technology Swap"). Teachers do this by rotating students between digital and face-to-face learning on a schedule. For example, a teacher may alternate days that each class of students has digital and face-to-face instruction in each period. (By contrast, in a Flex model students are learning digitally unless a teacher pulls them out for face-to-face instruction—as needed, not on a preset schedule, nor in preset groups.)

Today, teachers spend a portion of their instructional time covering basic knowledge and skills, content that is repeated from year to year and varies little across 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 on applying their knowledge to develop higher-order thinking skills, but more students will have teachers who excel in these challenging parts of instruction.

Schools of many kinds will find this model useful for reaching more students with excellent teachers. At the secondary level where the school day is divided into class periods, excellent teachers may replace a portion of teaching time with digital instruction in just one class period or in many class periods, with attention to feasible student loads. By extending reach in some but not all class periods, schools can limit teachers' student loads, pay teachers more, and



increase their planning time, if desired (see example on page 4).

Schools may implement this model in some 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.

Having students in each class period in face-to-face learning and digital learning on alternating days creates a simple rotation, and leaves flexibility for teachers and schools to extend reach on a per-class basis. Rotations in which students spend less than half of their time learning digitally will require team-teaching and alternating schedules across multiple weeks within the same class period. See model detail for examples. This model relies on having solid digital instruction in core skills and knowledge in the reach-extended subjects, and monitors who are able to supervise students during

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



digital learning time. Teachers can be paid more, and technology can be funded, by paying digital lab monitors less than certified teachers, 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 the whole-group instruction they replaced, 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 [opportunityculture.org/reach/digital-instruction/](http://opportunityculture.org/reach/digital-instruction/).

**Role and Schedule Changes for Excellent Teachers:** 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 lessons. They spend more of their time on personalized follow-up and on developing students' higher-order thinking skills, with more students overall but in class sizes no bigger than previously taught. If schedules are designed accordingly, teachers may teach additional students for more pay, while also increasing their planning time.

**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.

When excellent teachers reach more students successfully, schools may reduce the number of non-classroom instructional specialists who provide remedial instruction, freeing funds that can be used to pay excellent teachers more. Reach extension may also reduce course repetition needed when students do not pass.

Optional positions may increase the number of students excellent teachers can reach effectively. For example, 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, particularly when teachers have significantly increased student loads at the secondary level.

**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 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.

During digital learning time, students at all levels can spend more time with digital materials that meet them at their current levels of mastery. Students who are ahead can pursue advanced instruction digitally. Students who are behind or struggling with a discrete unit can repeat digital lessons and complete additional practice until they understand. Teachers and tutors 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 with the teacher(s) in each class period on a fixed schedule. Coordinating the digital lab and classroom instruction schedules is a critical aspect of organizing this model. Tutoring can be scheduled during the time that students are in the digital lab.

Schools may craft schedules to include extra planning and collaboration time for teachers during the school day.

**Pay Changes:** All teachers who teach more students can be paid substantially 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. Schools can then share that financial benefit through higher salaries for teachers who successfully reach more students. Additional costs may also include new technology costs, pay for new tutor positions, and possibly pay for administrative/teaching assistants if teachers increase their student loads significantly. See details about pay and budget effects in *Financial Planning for Time-Technology Swap—Rotation* and the *Financial Planning Summary*, both at <http://opportunityculture.org/reach/pay-teachers-more/>.

**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:** Teachers may extend reach in one, a few, or all class periods. The table below shows the cumulative reach effects of digital/face-to-face rotation when students spend half of their learning time in a digital learning lab, in a Rotation by alternating periods or block of time within periods on a schedule.

### Secondary Rotation When Students Learn Digitally for 50% of School Time

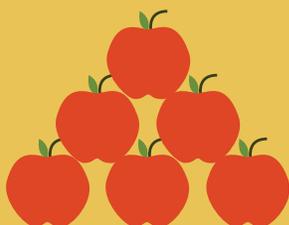
Class Period	# of Students Per Class*		Cumulative Student Load for Each Additional Period (50% Digital Learning)	Cumulative Additional % of Students Reached By Extending Reach Each Class Period
	Cohort A	Cohort B		
			Initial Load: 144 Students	
1	24	24	168	17%
2	24	24	192	33%
3	24	24	216	50%
4	24	24	240	67%
5	24	24	264	83%
6	24	24	288	100%

\*Note: Students may alternate days in digital lab, rather than splitting class periods between face-to-face learning and digital.

#### 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



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

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

- \* Which **teachers** will extend their reach? Consider past learning results in particular subjects and efficiency in monitoring learning and in planning instruction.
- \* In **which classes will these teachers extend** their reach? **Which class periods** (based on student demand for classes as well as teachers' total student load)?
- \* **How many classes of what size** will each extended teacher teach? At first? Later goal?
- \* Will there be **student load maximums applying to all teachers**, or will this be **determined individually with each teacher**?
- \* Will some teachers **teach in teams to allow reduced digital learning time** by students?
- \* Will **new teachers enter** as non-reach-extended teachers as in

most classrooms today? If not, what learning paths for new and developing teachers will the school create?

- \* 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?
- \* 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 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 and **plan** instruction?
- \* Which **students** will be included? Consider which students will benefit most, as well as the student mix across classrooms, the 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, if any**, 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?



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

- \* What **scale of change** is needed to fund digital labs and to 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, if any. 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 change 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: 50% REACH EXTENSION (SECONDARY)

- \* In this middle or high school, Teacher A consistently produces top-quartile student growth and excels in other ratings. She previously spent half of her class time on whole-group instruction and half on personalized/enriched teaching.
- \* Teacher B is the weakest in the same subject (in the same grade or across multiple grades) and rarely achieves a year of progress.
- \* Before the change, Teacher A teaches cohort A of differing students each class period (Classes 1-A, 2-A, 3-A and so on) and Teacher B teaches cohort B (Classes 1-B, 2-B, 3-B and so on).
- \* After the change, Teacher A alternates teaching cohort A and cohort B in periods 1, 2, and 3 on alternating days. The cohort not with Teacher A on a given day has digital instruction during that same period.
- \* Teacher A teaches only cohort A students in periods 4, 5, and 6 on alternating days, and uses the days when students are in the digital lab for planning, peer collaboration, and student follow-up.
- \* In courses where teachers are replacing a portion of instruction with digital learning, students spend every other day in a digital lab to acquire knowledge and skills, with personalized pacing according to their mastery of the content. Tutoring is available.
- \* The other half of their time in these courses (on alternating days) is spent with Teacher A, who focuses on enriched and personalized instruction—applying students' knowledge and skills to analytical, creative, and conceptual problems. This includes individual and team work, projects, and short-but-complex assignments.
- \* Class size and enriched learning time with a teacher do not change. The amount of time that students have with a teacher for personalized, enriched portions of learning do not change,

because teachers use technology to replace less complex instruction.

- \* Teacher A teaches 50% more students, but (s)he also has 7.5 extra in-school hours each week (3 free periods every other day) to monitor progress, grade, develop instructional plans, and coach novice and developing teachers.

- \* Another teacher’s reach can be extended 50% to cover cohort B in periods 4, 5, and 6, or these classes may have smaller enrollments, or continue to be taught with all in-person instruction.
- \* Higher pay for Teacher A is funded by lower pay for digital lab monitors and fewer specialists.

	TEACHER TIME	In-School Instructional Hours (Approximately 32 Hours)*								Other Hours	
	Class Period	1	2	3	4	5	6	7	8	—	—
BEFORE	Weekly Hours	4 Hrs.	4 Hrs.	4 Hrs.	4 Hrs.	4 Hrs.	4 Hrs.	4 Hrs.	4 Hrs.	20 Hrs.	
	Average Daily Minutes	48 Min.	48 Min.	48 Min.	48 Min.	48 Min.	48 Min.	48 Min.	48 Min.	4 Hours	
	Excellent Teacher A	Class 1-A	Class 2-A	Class 3-A	Class 4-A	Class 5-A	Class 6-A	Non inst.	Non inst.	Noninstructional	
	Weakest Teacher B	Class 1-B	Class 2-B	Class 3-B	Class 4-B	Class 5-B	Class 6-B	Non inst.	Non inst.	Noninstructional	
	Excellent Teacher A Mon./Wed. + Alt. Fri.	Class 1-A	Class 2-A	Class 3-A	Class 4-A	Class 5-A	Class 6-A	Non inst.	Non inst.	Noninstructional	
AFTER	Excellent Teacher A Tues./Thurs. + Alt. Fri.	Class 1-B	Class 2-B	Class 3-B	Non Inst.	Noninstructional					
	Weakest Teacher B**	—	—	—	—	—	—	—	—	—	—
	Digital Lab Monitor/Tutor:*** Mon./Wed. + Alt. Fri.	Class 1-B	Class 2-B	Class 3-B	--	--	--	Non inst.	Non inst.	—	—
	Digital Lab Monitor/Tutor: Tues./Thurs. + Alt. Fri.	Class 1-A	Class 2-A	Class 3-A	Class 4-A	Class 5-A	Class 6-A	Non inst.	Non inst.	—	—

\*Hours based on National Center for Education Statistics 2007–08 *Schools and Staffing Survey*. Available: <http://nces.ed.gov/surveys/sass/index.asp>. Average instructional hours per week: 31–32. Average total hours: 51–54 \*\*Teacher B’s role can be eliminated by voluntary attrition, early retirement, layoff, or dismissal. \*\*\*Student schedules can avoid consecutive digital periods.

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