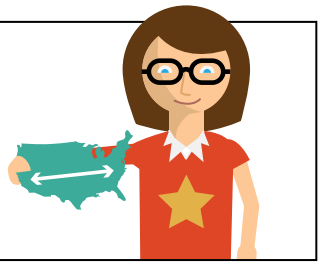
REDESIGNING SCHOOLS

MODELS TO REACH EVERY STUDENT WITH EXCELLENT TEACHERS



IN-PERSON ROTATION (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. Students rotate on a fixed schedule between face-to-face learning with the teacher and digital instruction, 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. During digital learning time, lab monitors supervise students, and tutors may work with students individually and in small groups. Teachers, monitors, and others collaborate as a team. **Estimated Reach Extension Effects:** Excellent elementary teachers reach 25%–100% more students, varying with the percentage of digital instruction time. For more on this model, see 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:

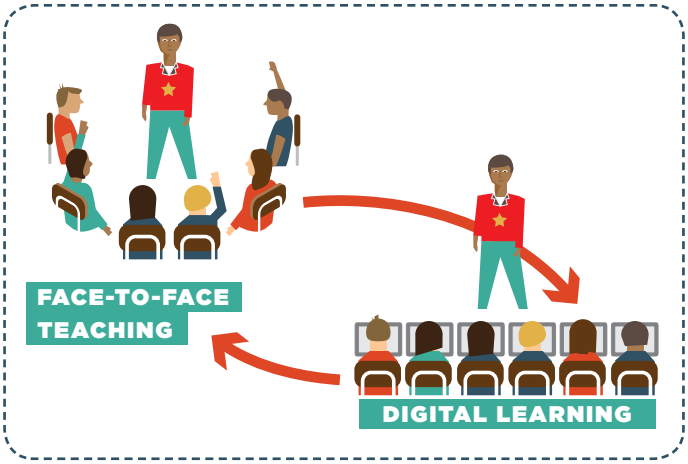
In-Person Rotations in elementary schools enable excellent teachers to reach more students by replacing enough of their instructional time that they may teach additional classes, swapping some teaching time with technology-based instruction ("Time-Technology Swap").

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 the highest-value parts of their teaching. 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.

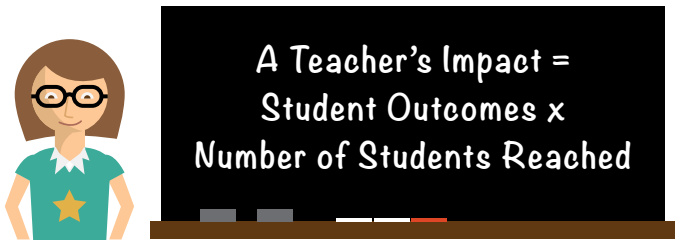
Today, teachers spend a portion of their instructional time covering basic knowledge and skills, content that is repeated from year to year and varies little among students. By letting students learn basic material digitally, teachers reduce this aspect of instruction in their schedules. Students can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

This model relies on having solid digital instruction in core skills and knowledge in the reach-extended subjects, plus digital lab monitors who are able to supervise students during digital learning time. Teachers can be paid more, and technology can be funded, by paying digital 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 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: Teachers teach more classes of students, but they spend less time on whole-group instruction of 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 higher-order thinking skills, with more students.

Combining this model with team-teaching or subject specialization allows more options for scheduling the desired quantity of digital learning time. In all cases, teachers must collaborate with digital lab monitors, tutors, and other staff working with students.

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 be able to 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. Some instructional specialists may be candidates for reach-extended teaching roles.
- Optional positions may increase the number of students excellent teachers 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.

During digital learning time, students at all levels of learning can spend more of their time with digital material at their current level of mastery. Students who are ahead can pursue advanced instruction digitally. Students who are behind or who are struggling with a discrete unit can repeat digital lessons and complete additional practice until they understand.

Scheduling Changes: Students rotate between time in the digital lab and face-to-face instruction with the teacher(s) on a fixed schedule. Coordinating the digital lab and classroom instruction schedules is a critical aspect of organizing this model in a school. Tutors can be scheduled during the time that students would otherwise be working on digital instruction.

Pay Changes: All teachers who teach more students can be paid substantially more, because the digital lab monitor position is 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 also include new technology costs and pay for new tutor positions. 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 up to 100 students. 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 on following page.

Additional Students Reached with Differing Times on Digital Learning and Staffing Changes**

BEFORE			AFTER					
# of Teachers	# of Students	Class Size	# of Teachers*	# of Students	Class Size	# of Students Per Teacher Overall	Additional % of Students Reached Per Teacher	Student Time on Digital Learning
1	24	24	N/A**	N/A	N/A	N/A	N/A	N/A
2	48	24	1	48	24	48	100%	1/2
3	72	24	2	72	24	36	50%	1/3
4	96	24	3	96	24	32	33%	1/4
5	120	24	4	120	24	30	25%	1/5

*Students are with digital lab monitor when not with teachers.
**Teachers must team-teach to make all except 100% reach extension work at elementary level.

Combining this model with team-teaching—role specialization and/or subject specialization—enables teachers to extend their reach in similar ways with shorter amounts of digital learning time for students.

CRITICAL IMPLEMENTATION DECISIONS, AMONG OTHERS, INCLUDE:

- Which **teachers** will extend their reach? Consider past learning results 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 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?
- Will extended teachers **specialize** in subjects (if so: see In-Person Rotation + Subject Specialization version of this model at opportunityculture.org/reach/school-models/)? Will some noninstructional time also be reallocated (if so, what)?
- Will teachers teach in **teams, covering differing roles** in the same subjects, in order to allow the desired quantity of digital instruction?
- 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 **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** 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 classes? 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 to reduce 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 change be **communicated** to convey the value to teachers and students?
- What changes in policies and practices related to **hiring, retention, dismissal, professional development, leadership, and teacher evaluation** are needed?

EXAMPLE: ELEMENTARY ROTATION (100% REACH EXTENSION)

This is the most extreme reach possibility presented in this model. See In-Person Rotation + Subject Specialization at opportunityculture.org/reach/school-models/ *for an alternative schedule in which students spend less time learning digitally.*

- Teacher A consistently produces top-quartile student progress and excels in other ratings. He spends half of his class time on whole-group instruction and half on personalized/enriched teaching.
- Teacher B is the least effective in the same grade (or nearby grades), rarely achieving a year of learning progress.
- In this example, Teacher A shifts from teaching one group of students ("Class 1") all day to teaching two classes (Classes 1 and 2), each for half of their instructional time—a little over three hours per day per class, staggered on a rotating schedule.
- When not with Teacher A, students work in the digital lab to acquire knowledge and skills, with personalized pacing according to their mastery of the content. Tutoring is provided, as needed.
- When Teacher A is with students, he focuses on enriched and personalized instruction—applying students' knowledge and skills acquired online to analytical, creative, and conceptual

	TEACHER TIME*	IN-SCHOOL HOURS								NON-SCHOOL HOURS	
BEFORE	*Weekly Hours*	16 Hours			16 Hours			10 Hours		10 Hours	
	Average Hours/Day	3+			3+			2		2	
	Excellent Teacher A	Knowledge and Skills Student Class 1			Enriched/Personalized Student Class 1			Noninstructional		Noninstructional	
	Teacher B	Knowledge and Skills Student Class 2			Enriched/Personalized Student Class 2			Noninstructional		Noninstructional	
AFTER	**Excellent Teacher A**	Enriched/Personalized Student Class 1			Enriched/Personalized Student Class 2			Noninstructional		Noninstructional	
	Teacher B**	—	—	—	—	—	—	—	—	—	—
	Digital Lab Monitor/Tutor	Knowledge and Skills Student Class 2			Knowledge and Skills Student Class 1			Noninstructional		—	—

*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 is eliminated using one of the methods described above.

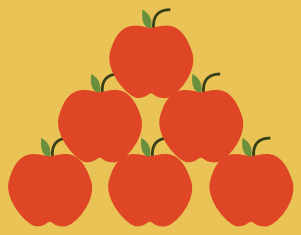
problems. This includes individual and team work, projects, and short-but-complex assignments.

- Class sizes 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 earns more. The digital lab monitor earns less but also works fewer hours. Teacher B's role can be eliminated by changing roles (to digital monitor or tutor), voluntary attrition, early retirement, layoff, or dismissal.
- The order and length of in-person and digital time for each subject can vary on a schedule to be age-appropriate and to fit other scheduling needs.
- In this example, Teacher A reaches 100% more children. See table on page 3 for alternatives.
- Twice as many students now have the best available teacher for in-person instruction.
- Teachers can focus on the most engaging aspects of teaching.

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**



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