



Supplemental Educational Services: Integrated Qualitative and Quantitative Study of Implementation and Impact

# THE MULTISITE STUDY OF THE IMPLEMENTATION AND IMPACT OF SUPPLEMENTAL EDUCATIONAL SERVICES

## SES and Beyond: Lessons for Out-of-School Time Programming from a Four-year, Multisite Study of Supplemental Educational Services

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and the SES IQ<sup>2</sup> Research Team

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# District partners

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*This research would not be possible without the cooperation of the following school districts:*

- Chicago Public Schools
- Dallas Independent School District
- Los Angeles Unified School District
- Milwaukee Public Schools
- Minneapolis Public Schools

# Supplemental Educational Services (SES) under NCLB and following waivers from NCLB

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- NCLB enacted in 2002 to close the achievement gap through accountability, flexibility and choice
- Requires public schools not making adequate yearly progress for 3 consecutive years to offer low-income children opportunities for extra academic assistance
  - School districts set aside 20% of Title I funding for SES
  - State educational agencies approve providers that offer a range of choices for free tutoring outside of school day
- 41 states, DC and 8 school districts in California have now been granted federal waivers that allow them flexibility to opt out of some core tenets of NCLB

# New opportunities for improving OST programming

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- School districts operating under waivers that plan to continue offering OST tutoring have increased authority and flexibility to structure services
  - Some school districts are already offering redesigned out-of-school-time (OST) tutoring programs
- Our research aims to strengthen the evidence base from which districts draw and to support districts in sharing information on effective practices with their peers in other districts

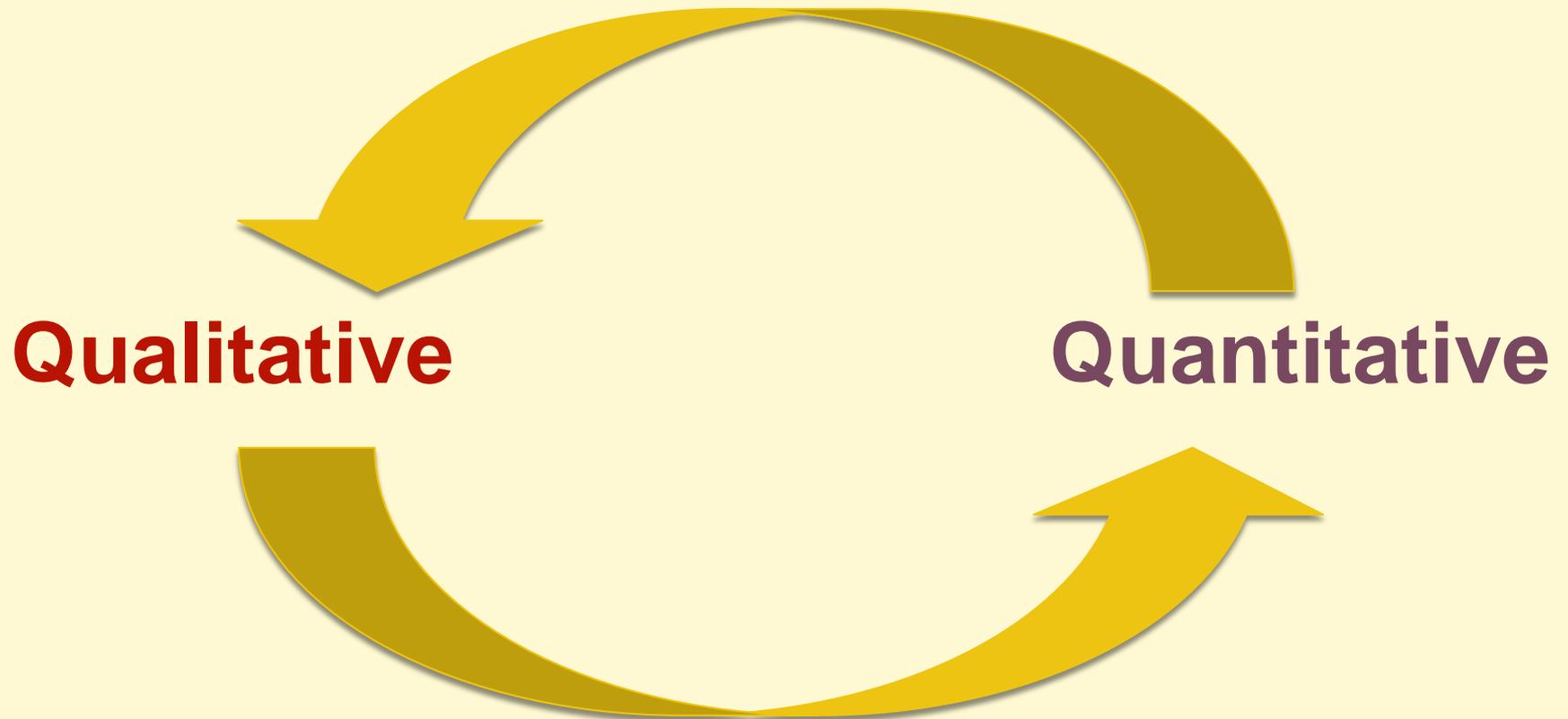
# Overarching study objectives and questions

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- **Improve student learning and achievement by identifying successful approaches in organization, management and delivery of SES/OST tutoring**
  - ▣ What constitutes high-quality SES/OST programming?
  - ▣ Is SES/OST tutoring effective in improving student achievement (in reading and math)?
  - ▣ What types of tutoring and providers are more effective in improving student outcomes?
  - ▣ What policy tools are available to state and local educational agencies to ensure that SES/OST services are available and effective?

# Fully integrated research design, data collection and mixed method analysis

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# Research design: Qualitative and quantitative data collection and sources

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- *Observations of tutoring sessions* using classroom observation instrument
- *Interviews with program directors* of tutoring providers and *tutoring staff* about instructional formats, curriculum, staff background and training, and communications
- *Interviews with district officials and state-level personnel*
- *Focus groups* with parents of SES-eligible students
- *Document analysis*: provider curriculum materials; assessments used; policy documents
- *District data*: from administrative databases and student transcript, demographic and standardized test data

# Evidence base: OST tutoring best practices

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- Small grouping patterns (ideally 3:1 or less)
- Instructional time is consistent and sustained
- Instructional strategies are varied, active, focused, sequenced, and explicit
- Tutors with content and pedagogical knowledge
- Instructional staff provided with continuous support and feedback
- Positive relationships between tutors and students

# Evidence base: Digital tutoring in K-12 education

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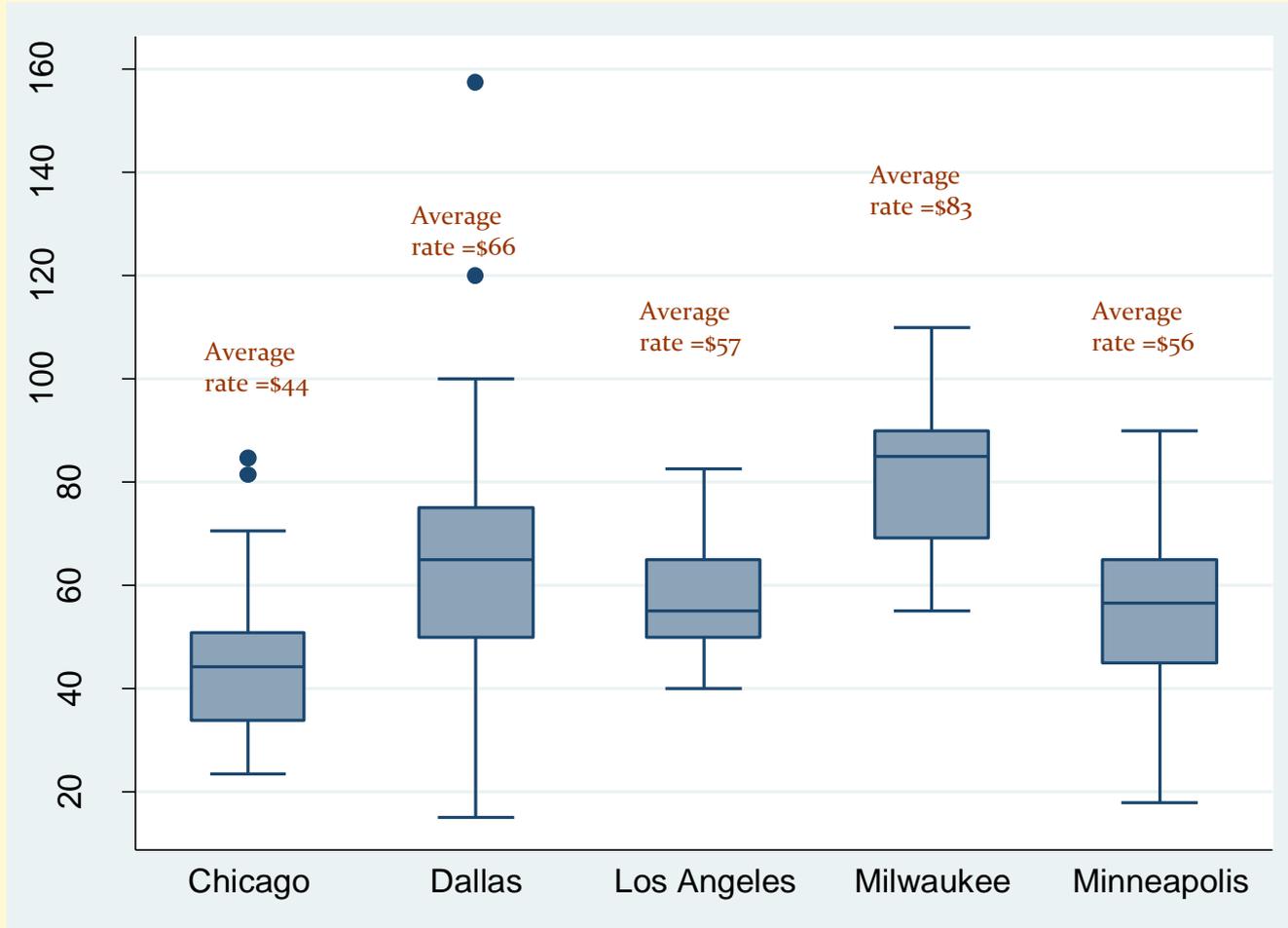
- Few studies examine impacts of different types of digital OST instruction on student outcomes
  - Mixed results and seldom focus on K-12 student population
- Characteristics of digital tutoring associated with positive outcomes
  - Live interaction between teachers and students
  - Real-time data feedback for teachers
  - Consistent access to technology for all students
  - Technology is used in applying higher order thinking

# Findings: Limited impact of SES on student achievement

- Under SES, impacts on student achievement limited by inadequate hours of tutoring
  - Minimum threshold of approx. 30 tutoring hours appears critical to producing measurable impacts
  - Increasing tutoring hours constrained by high hourly rates charged by providers and declining per-student allocations of Title I dollars
    - Digital providers charge higher rates than nondigital providers and have growing market shares
    - District providers charge lower rates that spur market competitiveness

# Findings: Provider advertised hourly rates by study district (2011-12)

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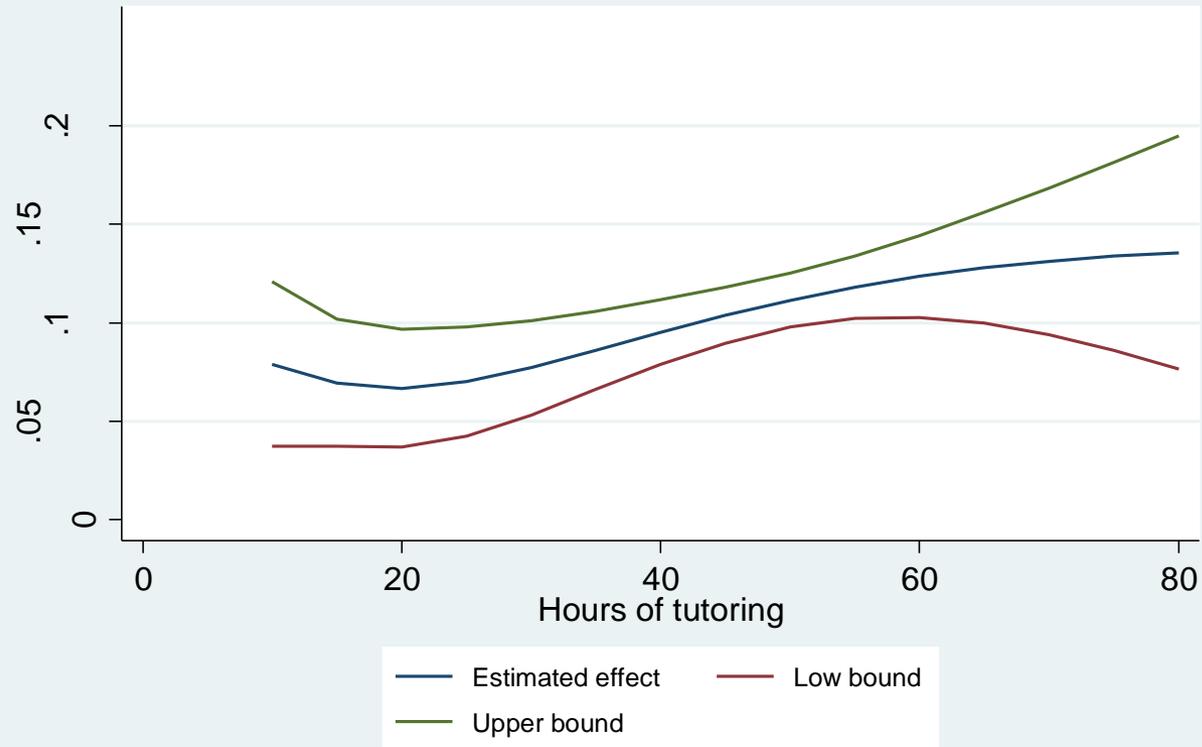


# Findings: Estimates of average SES program impacts by district

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Average Impacts of Any SES Attendance by School District, Year on Reading and Math Achievement (Gains)								
	2010-11 VAM w/school&student fixed effects				2011-12 VAM w/school&student fixed effects			
	Reading		Math		Reading		Math	
School district	# of Students with gain scores	Effect size	# of Students with gain scores	Effect size	# of Students with gain scores	Effect size	# of Students with gain scores	Effect size
Chicago	205,187	<b>0.075</b>	204,094	<b>0.064</b>	68,541	<b>0.042</b>	68,411	<b>0.045</b>
Minneapolis	5,025	<b>0.144</b>	5,045	<b>0.191</b>	4,247	-0.037	4,298	0.050
Milwaukee	2,826	0.021	2,831	-0.043	3,668	-0.020	3,663	0.031
Dallas	13,428	0.016	13,333	0.016	14,670	0.011	14,361	0.054
Los Angeles	32,453	-0.012	31,990	-0.012	44,383	<b>0.041</b>	43,607	<b>0.061</b>

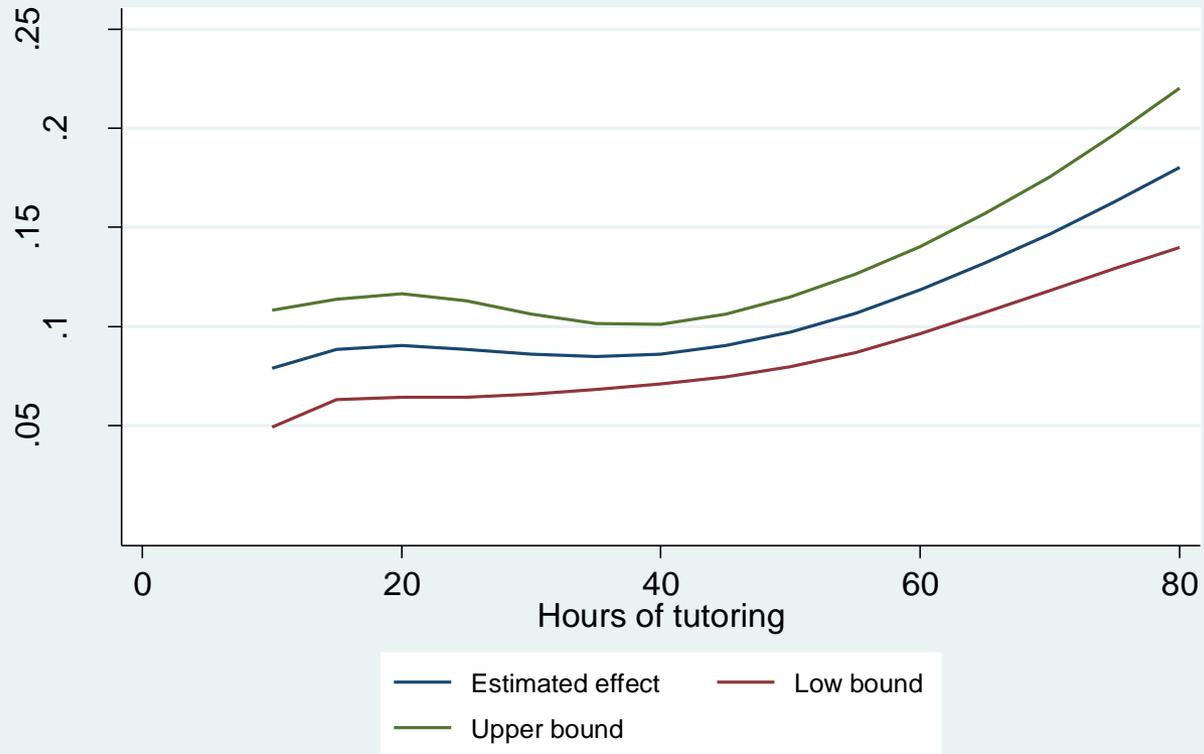
## Estimated effects of hours of tutoring on student reading achievement



Confidence Bounds at .95 % level  
Dose response function = Linear prediction

Based on data from Chicago Public Schools

## Estimated effects of hours of tutoring on student math achievement



Confidence Bounds at .95 % level  
Dose response function = Linear prediction

Based on data from Chicago Public Schools

# Findings: Patterns in SES/OST tutoring program implementation

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- Advertised time often not equal to actual instructional time
- Attendance flux can limit intensity of instruction
- High ratings for positive relationships between tutor and student
- Instruction often resembles traditional whole group model; limited use of other activities identified as key to quality instruction
- Programs can fail to serve needs of English language learners and students with disabilities

# Findings: SES less effective for students with special needs

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- English language learners and students with disabilities more likely to enroll and receive tutoring but less likely to realize achievement gains
  - Instruction rarely individualized or differentiated
  - Few highly qualified tutors—inadequate professional development; lack of materials/training for tutors; lack of staff fluent in families' native languages
  - Inappropriate accommodations due to lack of student assessment/IEP information
  - Confusion over legal responsibilities of services and data-sharing

# Findings: Digital OST tutoring

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- Digital providers charge significantly higher hourly rates for tutoring
  - Students receive significantly fewer hours of tutoring from digital providers
  - Hourly rates not positively correlated with digital provider attributes identified as more effective
- Role of tutor varies by provider and setting
- Can lack transparency and is difficult to monitor

# Findings: Digital OST tutoring

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- Seldom aligned to day-school curriculum
  - ▣ External alignment to state standards/CCSS, but mixed internal (district/school-day) alignment
- Technical challenges can get in the way of instruction
- Quality of information on providers for informing parent choice limited and at times contradictory
- Some promising practices (e.g. structured instruction, flexibility in scheduling) but exemplary OST practices (e.g., cognitively demanding tasks) largely missing

# Findings: Observation ratings for select indicators of instructional quality(2009-2013)

Indicator	Digital	Non-digital
Ask students why, how or what if questions.	0.24	0.52
Challenge students to push themselves intellectually.	0.30	0.50
Students push themselves intellectually.	0.29	0.51

# Findings: Observation ratings for digital-specific indicators (2012-13)

Pilot indicator	Average Rating
Technology used is reliable and accessible to all students	0.78
Instructional software adapts to students' needs	0.30
Use technology to employ higher order thinking skills	0.16

# Findings: Digital classifications developed and applied in this study

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- **Tutor Location:** Where does student access the tutor?
  - Online or phone (remote access) vs. face-to-face (in-person)
- **Instruction Driver:** Who/what guides student learning?
  - Curriculum-based software , tutor actively working through curriculum-based software with student, tutor without curriculum-based software
- **Curriculum Location:** Where does student access course content?
  - E.g., via digital device, over Internet, using locally installed software, non-digital resources (e.g. books, worksheets, chalk/whiteboard, etc.)
- **Tutor Synchronicity:** How immediate is the student's communication with the tutor?
  - Asynchronous (time-delayed) or synchronous (live)

# Findings: Digital tutoring attributes and impacts on student achievement

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- Students receiving tutoring all in-person (vs. online/face-to-face blend) achieve significantly higher gains in math
- Students receiving a combination of software-driven/tutor with software driven gain *less* in math; curriculum-based software-driven associated with lower gains in reading
  - *Students w/disabilities more likely to be tutored with curriculum-based software or tutor with software combination*
- Synchronous tutoring associated with higher gains in math
  - *ELLs , Hispanics student w/disabilities less likely to receive synchronous tutoring*

# Research to Practice: Examples of policy action to date

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- Students required to attend **> 40 hours** of tutoring per year
  - Performance-based contracts
- **Maximum hourly rate** set based on elements impacting provider rates (e.g. facility use fees, insurance requirements, wages, transportation, etc.) and reduce costs of provision
- **Assessments** of instructional quality (e.g., through monitoring tools) to ensure greater transparency and encourage **enrichment and differentiation**
- Criteria established (beyond state standards) for **aligning the tutoring curriculum to that of the day school**
- **Minimum tutor qualifications** established

# Research to Practice: Recommendations

- In district-tutoring provider contracts, negotiate lower hourly rates for tutoring that facilitate more hours of tutoring per student
- Develop procedures/instruments for regularly monitoring quality and quantity of instruction
- Establish minimum tutor qualifications and require providers receiving public funds to serve *all* students, including ELLs and students with disabilities
- Demand specificity from providers of digital instruction on tutor location, instruction driver, curriculum location and tutor synchronicity and establish monitoring procedures accordingly
- Establish lines of communication with peer districts to share “best practices” and information on providers

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