

## The Role of Educational Technology in Meeting the Promise of Supplemental Educational Services

Steve Fleischman, Principal Research Scientist, American Institutes for Research,  
Director, Supplemental Educational Services Quality (SESQ) Center, [www.tutorsforkids.org](http://www.tutorsforkids.org)

### Introduction

The supplemental educational services (SES) provision of the *No Child Left Behind* (NCLB) Act of 2001 establishes a significant new opportunity for families to *choose*, educators to *provide*, and eligible low-income children to *receive* effective, out-of-school academic support services. According to NCLB, supplemental educational services—essentially tutoring services provided *free* of charge to students—**must** be offered to eligible students from low-income families who attend Title I schools that have been identified by their states as *needing improvement*—generally, by failing to make adequate yearly progress (AYP) for at least three years.<sup>1</sup>

The SES provision expands options for parents of low-income children by enabling them to seek out these free, effective tutoring services. These services provide students extra help in academic sub-

jects such as reading, language arts, and mathematics. They are generally delivered outside the regular school day—before or after school, on weekends, or in the summer. In addition to providing expanded choice to parents, SES offers educators another potentially effective way to boost the academic achievement of traditionally underserved youth. Finally, these mandated services provide policymakers an important accountability tool and support mechanism to make sure that all children receive the academic help they need.

In 2004, this program will offer increased choice of supplemental services and educational opportunities to thousands of students in Title I schools throughout the country.<sup>2</sup> Official estimates of the potential scope and impact of SES are not yet available. However, some observers estimate that SES ultimately may benefit as many as 1.5 million students

---

<sup>1</sup> The services are to be paid for by districts, generally from their existing Title I, Part A allocations. Additional U.S. Department of Education information regarding these funding requirements is provided on pages 29-38 of the *Supplemental Educational Services Non-Regulatory Guidance* (August 22, 2003), available at [www.ed.gov/policy/elsec/guid/suppsvcsguid.doc](http://www.ed.gov/policy/elsec/guid/suppsvcsguid.doc). The U.S. Department of Education's definitions of key terms in SES (eligible child, eligible school, provider, supplemental educational services) are provided in Appendix A to this paper.

---

<sup>2</sup> Currently, national figures are not available to permit accurate estimates of the total number of identified schools and eligible students. This is because some states post lists of schools that have not made adequate yearly progress that do not clearly indicate which of these schools are required to provide SES. As of June 2004, the Supplemental Educational Services Quality (SESQ) Center ([www.tutorsforkids.org](http://www.tutorsforkids.org)) has identified 29 states that have posted clear lists of schools not making AYP, thereby allowing for an accurate count. In these states, more than 2,000 schools are required to provide SES in 2004.

and create a marketplace for these services worth more than \$2 billion annually.<sup>3</sup> Although the long-term goal of the program is to reduce the need to provide SES, many more students may be eligible to receive the services in the short term. As of June 2004, nationwide nearly 1,400 SES providers have been approved by the states.<sup>4</sup>

Similar to other large-scale education improvement initiatives, in the end, the committed and careful implementation of SES is likely to prove key to its success in meeting the needs of students. In this regard, state policymakers and administrators have a crucial role to play. This paper summarizes the SES provision, outlines key challenges to the successful implementation of the program, reviews the role that educational technology may play in improving the delivery of supplemental services, and offers ideas to turn the current implementation challenges into opportunities to help eligible children benefit from SES.

### **SES: The Basics**

The SES provision engages a multiplicity of actors in its implementation: state policymakers and administrators, district and school leaders and staff, SES providers, families and parents, and ultimately, the students who receive the services. As an integral part of NCLB, the SES provision is put in motion after each **state** sets its own definition of adequate yearly progress (AYP), the minimum improvement that districts and schools must reach

every year on state achievement tests and other measures (see Table 1). The law specifies that Title I schools that do not show AYP for three years or more must offer SES to students.<sup>5</sup> Each state is charged with identifying schools that do not make AYP for at least three years.

The states also must develop a process that results in a list of approved SES **providers**. States are supposed to identify providers that offer high-quality, research-based tutoring services in line with state standards. Each state creates its own application and establishes criteria for approving providers. At a minimum, states must require a program to demonstrate that it:

- has a proven track record of raising student achievement in academic subjects (such as reading and math);
- offers high-quality, research-based instruction focused on improving student academic achievement;
- offers services that are in line with state standards;
- is financially sound; and
- complies with federal, state, and local health, safety, and civil rights laws.

States set their own application timelines but must give providers an opportunity to apply for state approval at least once a year. When reviewing provider applications, states can work to include input from district representatives, parents, teachers, and business and community partners. Once a state reviews applications, it must publish a list of approved providers, broken down by

---

<sup>3</sup> Siobhan Gorman, a journalist who published a paper on the emerging SES marketplace in January 2004, cites these estimates. Steve Pines, executive director of the Education Industry Association, provides similar figures.

<sup>4</sup> Estimates of the number of state-approved providers vary, with the resulting total ranging from approximately 1,400 to 1,800 providers. The SESQ Center derived the figure of 1,400 by counting each approved provider only once in each state. Thus, a national provider of services with several approved local branch offices was counted only once in our tally. As a result, the maximum number of times that a provider can be approved in the count is 52—all 50 states, the District of Columbia, and Puerto Rico.

---

<sup>5</sup> For further details concerning the NCLB requirements regarding SES, see the U.S. Department of Education's *Supplemental Educational Services Non-Regulatory Guidance* at [www.ed.gov/policy/elsec/guid/suppsvcsguid.doc](http://www.ed.gov/policy/elsec/guid/suppsvcsguid.doc).



**Table 1: NCLB School Improvement and Choice Options**

School Yr 1	Doesn't make AYP	
School Yr 2	Doesn't make AYP	
School Yr 3	1 <sup>st</sup> Yr of "school improvement"	<ul style="list-style-type: none"> <li>• Technical assistance</li> <li>• Public school choice</li> </ul>
School Yr 4	2 <sup>nd</sup> Yr of "school improvement"	<ul style="list-style-type: none"> <li>• Technical assistance</li> <li>• Public school choice</li> <li>• SES</li> </ul>

Source: U.S. Department of Education, Office of Innovation and Improvement, *Innovations in Education: Creating Strong Supplemental Educational Services Programs*, Washington, D.C., 2004

district. This list should at least indicate for each provider:

- subject areas (such as reading or math) and grade levels covered;
- provider's track record in raising student achievement;
- qualifications of the tutoring staff;
- where and when the services are offered;
- provider's ability to meet the needs of students with disabilities or who are English language learners; and
- provider's contact information.

A variety of public and private entities may offer the services, including non-profit groups; for-profit companies; local community programs; colleges or universities; national organizations; faith-based groups; private and charter schools; and public schools and districts that have achieved AYP. Approved providers may offer these services through a variety of means. Many providers are

offering "hands on" tutoring by trained instructors. Others are providing Internet-based or computer-based instruction and academic support that students can access in a school, at a community center, or at home. The same state approval criteria apply to all applicants, including educational technology-based SES providers.

In turn, each **district** with schools that fail to make AYP determines which students in its schools are eligible for the services.<sup>6</sup> SES is available to low-income students in the school—generally, those students who are eligible for free or reduced-price lunch.

---

<sup>6</sup> If a Title I school does not make AYP for two years, it must offer all students in that school the opportunity to transfer to another public school that is not in need of improvement. Additional information regarding the "choice options" provided by NCLB are available on the U.S. Department of Education's website at [www.ed.gov/about/offices/list/oii/about/choice.html](http://www.ed.gov/about/offices/list/oii/about/choice.html).

Once the district determines which students are eligible, it notifies **families** that their children qualify for SES. The district must also provide information about SES providers available locally, to help families make their selection. If families ask for assistance, a district must help them choose an SES provider. Once a family chooses a provider, the district enters into a contract with the provider and pays for tutoring services. If more eligible families request SES than existing funds can support, districts must give priority to the lowest-achieving low-income students. After a family chooses, the provider, the school, and the district meet with the family to agree on performance goals for the child and a schedule for services.

The **state** and **district** both play a significant quality assurance role. The state has the overall responsibility for the management of the program, including the approval and monitoring of SES providers. Under NCLB, **states** are to:

- Monitor and report on the performance of the approved providers,
- Provide a least annual opportunities for additional providers to join the approved list, and
- Remove from the state list any provider that has failed to help students improve their academic achievement for two or more years.

**Districts** play an important role in ensuring the smooth functioning of the program at the local level. They notify parents and facilitate choice, work with schools to coordinate services, enter into contracts with providers, and administer operational and financial details of the program. **States**, in particular, have an opportunity to expand the number of effective SES providers, and assure quality implementation of the program. Suggestions on how they may do so are provided below.

## Potential Role of Educational Technology in SES

Although there are many applications of educational technology in the SES field, this paper concentrates on describing the promise of providers who use either computer-based instruction (CBI) or online tutoring as a primary component of their programs. In practice, individual providers currently offer CBI that may or may not be accompanied by a significant in-person tutoring or supervision component, and may be used as a core or supplemental instructional tool. Computer-based instruction may be used online or on-site, and to teach new content and skills or to provide additional review or practice. Similarly, there is variety in the delivery of online tutoring. For example, services may be offered live and 24 hours a day or at set times, and through a structured curriculum or more free-flowing student-tutor interaction. Finally, even more “traditional” providers that rely on on-site tutors may use a significant technology component to supplement instruction via CBI, or to track and report on student progress.

Douglas A. Levin, an educational technology expert at the American Institutes for Research, points that that for over thirty years, one of the most common uses of the computer in education has been to instruct and tutor students on challenging academic content and skills. He explains that, “when used as a tutor, the computer presents material, evaluates responses, determines what to present next, and keeps records of progress (Kulik, 1994). Students receiving tutoring with the aid of a high-quality computer tutor are provided with a structured path through a problem set, supported by some combination of visual, verbal, and symbolic cues that serve to improve student comprehension of challenging material (Sivin-Kachala and Bialo, 2000).”<sup>7</sup>

---

<sup>7</sup> Personal communication to the author (June 6, 2004).



**Table 2: SES Overview**

	<b>Step 1: Determine who is eligible</b>	<b>Step 2: Identify providers</b>	<b>Step 3: Review options</b>	<b>Step 4: Make choices and begin services</b>	<b>Step 5: Monitor and expand provider options</b>
States <i>must:</i>	<ul style="list-style-type: none"> <li>Determine which schools need improvement because they did not make "adequate yearly progress" (AYP)</li> <li>Identify schools that must provide SES because they have not made AYP for three years</li> </ul>	<ul style="list-style-type: none"> <li>Encourage organizations to apply to be SES providers</li> <li>Request applications from providers</li> <li>Review applications and approve providers</li> <li>Give districts a list of approved providers in their area</li> </ul>	<ul style="list-style-type: none"> <li><i>Optional:</i> Provide districts with sample materials for communicating with eligible families about SES and contracting with providers</li> </ul>	<ul style="list-style-type: none"> <li>Monitor the performance of approved providers and report results</li> <li>Encourage more providers to apply for state approval at least once a year</li> </ul>	<ul style="list-style-type: none"> <li>Monitor the performance of approved providers and report results</li> <li>Allow more providers to apply for state approval at least once a year</li> <li>Remove from the state list any provider that has not helped students improve their achievement for two or more years</li> </ul>
Districts <i>must:</i>	<ul style="list-style-type: none"> <li>Identify students who are eligible for SES who attend schools that did not make AYP for three years</li> <li>Determine which students get priority if demand exceeds available funding</li> </ul>	<ul style="list-style-type: none"> <li><i>Optional:</i> Encourage local groups to apply to be SES providers</li> </ul>	<ul style="list-style-type: none"> <li>Tell parents whether their child is eligible for SES</li> <li>Provide parents with clear, complete, consistent information about local provider options</li> <li>Tell parents how to sign up for SES</li> </ul>	<ul style="list-style-type: none"> <li>Help families pick a provider, if requested</li> <li>Enter into contracts with the providers that families choose</li> <li>Pay providers</li> <li>Work with each student's provider, school and families to set goals for each student</li> </ul>	<ul style="list-style-type: none"> <li>Provide the state with information to help monitor the performance of approved providers</li> </ul>
Families <i>can:</i>	<ul style="list-style-type: none"> <li>Find out whether your child's school made AYP by contacting his or her school, district, or state</li> </ul>		<ul style="list-style-type: none"> <li>Find out whether your child is eligible for SES by contacting school, district or community group</li> <li>Review provider options</li> <li>Select a provider</li> </ul>	<ul style="list-style-type: none"> <li>Work with your chosen provider, your child's school, and the district to set goals for your child</li> </ul>	<ul style="list-style-type: none"> <li>Monitor your child's progress with the provider and provide feedback to the provider, school, district, and state</li> </ul>
Providers <i>can:</i>	<ul style="list-style-type: none"> <li>Determine whether your program has the capacity to serve students in regions where schools are required to provide SES</li> </ul>	<ul style="list-style-type: none"> <li>Find and review the state SES provider application</li> <li>Complete and submit the application</li> </ul>	<ul style="list-style-type: none"> <li>If approved, contact the school(s) and district(s) to establish a relationship and provide staff with information for families about your program</li> </ul>	<ul style="list-style-type: none"> <li>Provide clear information to families and schools about your services</li> <li>Enter into contracts with the district(s) if students sign up for your program</li> <li>Work with your student's family, school, and district to set goals for each student who signs up for your program</li> </ul>	<ul style="list-style-type: none"> <li>Provide clear information to each student's family, school, and district about his or her progress in your program</li> </ul>

Source: SESQ Center 2004

Before examining the promise of SES, and technology-based provision of these services, it is important to point out that as an innovative policy initiative, SES does *not yet* have scientifically based outcome evidence regarding its effectiveness. Nevertheless, prior research regarding the benefits that students similar to those targeted for support by this program *can* receive from tutoring and other out-of-school support services suggests that, if implemented well, SES will achieve its intended outcomes.<sup>8</sup> Potential benefits established by prior research include:

- **Improved student achievement and work habits** that are accomplished by building on learning that takes place during the school day.
- **Individual instruction focused on specific student needs** that permits students who may not learn well in traditional classrooms to learn in different, perhaps more effective ways.
- **Reduced incidence of delinquent or risky behavior** achieved by providing students a safe, supportive, and engaging environment outside of school.

Specifically regarding the effectiveness of educational technology, Levin points out that within the last five to seven years, innovations in computer-based tutoring have allowed specially trained educators, supported by a suite of instructional and communication tools, to provide real-time tutoring to students near and far via the Internet. He argues that such approaches have the potential to offer additional instructional flexibility and personalization in assisting students to master challenging academic content. Levin points out that research on the effectiveness of computer-based tutoring for students has been conducted across a wide variety of subject areas, including read-

---

<sup>8</sup> For a review of this promising evidence, see Supplemental Educational Services Quality Center, *Implementing Supplemental Educational Services: Opportunities and Challenges* at [www.tutorsforkids.org/docs/PolicyBrief52004.pdf](http://www.tutorsforkids.org/docs/PolicyBrief52004.pdf).

ing/language arts, mathematics, and science. In these studies:

- Students usually **learn more** in classes in which they receive computer-based instruction and have more positive attitudes toward the subject matter being studied (Fletcher, 2003; Kulik, 1994; Kulik, 2003).
- Students **learn their lessons in less time** with computer-based instruction (Fletcher, 2003; Kulik 1994).
- The **cost is reduced** to provide such instruction versus comparably effective approaches (Fletcher, 2003; Levin, 1987; Solomon, 1999).

Further, there is *some* promising research concerning the effectiveness of educational technology solutions in raising student achievement for disadvantaged youth, i.e., those most likely to be served by SES. However, Professor Steven M. Ross, a leading researcher on educational technology, points out that so far this evidence is still “mixed.”<sup>9</sup> Despite this, Dr. Ross contends that, “well designed educational technology programs can be *highly effective*.”

According to Ross, educational technology merely represents a potentially effective delivery vehicle for instruction and support. He suggests that to determine whether an education technology-based SES program is potentially effective consumers will need to review the quality of the instruction and support offered, the curriculum that is used, and how well the program has met the needs of similar children in the past. Ross argues that *all* SES programs should be

---

<sup>9</sup> Personal interview (June 4, 2004). Dr. Ross is a professor of educational psychology and the director of the Center for Research in Education Policy at the University of Memphis. In addition, he is the longtime research editor of a leading academic journal on educational technology (*Educational Technology Research and Development*), a member of editorial boards of several other educational research journals, and an advisor to a number of states on SES implementation.

held to the same standards, regardless of whether they are technology-based or not.

That said, Dr. Ross and others who have studied this emerging field note that education technology-based SES providers may offer significant benefits to policymakers and end users.<sup>10</sup> In her recent review of the emerging SES marketplace of providers, journalist Siobhan Gorman points out that those who are providing online services “could fill an important niche in serving students who don’t want to or can’t get to a site-based provider.”<sup>11</sup> Educational-technology solutions offer ways to address a number of implementation challenges—giving parents another significant choice of providers and educators another support to meet their students’ academic needs goals—because they:

- **Can be cost-effective to deliver.** The actual amount that is provided for each student to receive SES is set based on the district-level Title I per-pupil allocation, which generally ranges from \$750 to \$1,900. Providers in local marketplaces are free to determine whether to offer services based on these costs. In some locales where there are few students at an individual site (urban or suburban areas) or where students are hard to reach (remote or rural areas) SES providers who use distance learning technologies may have a financial incentive based on lower operating costs, and an operational advantage in delivering services. Indeed, they *may* represent the only available providers. Thus, states that have many eligible students in “hard to reach” areas may have a special incentive to promote the entry of educational technology-based SES providers into the market.

<sup>10</sup> Additional information regarding the research evidence base for educational technology is available from the Center for Applied Research in Educational Technology (<http://caret.iste.org>).

<sup>11</sup> Siobhan Gorman. *The Invisible Hand of No Child Left Behind?* American Enterprise Institute (AEI), January 15, 2004. Available online at [www.aei.org/publications/pubID.19730,filter.all/pub\\_detail.asp](http://www.aei.org/publications/pubID.19730,filter.all/pub_detail.asp).

- **May be more convenient and engaging to use than some “traditional” tutoring services.** As with other applications of educational technology, SES services can be accessed from a variety of locations and at different times. This allows for great flexibility in the delivery and access of services, and may be particularly attractive to older students, who might otherwise not participate. In this regard, it is useful to note that some online providers, such as SMARTHINKING—which was already providing similar tutoring services live, online and 24 hours a day to college students when the SES provision was launched—have entered the new marketplace because of its perceived growth opportunities. In addition, the novel approaches employed by a number of online and computer-based instructional services may offer students new and more engaging opportunities to master academic material.
- **When well designed, technology-based programs or online services can provide great consistency of instruction.** Dr. Ross points out that because of their software design, and structured interactions technology-based providers may be able to overcome some of the major challenges posed to “traditional” tutoring services, particularly those of recruiting, training, and assuring the availability of large numbers of high quality tutors. Providers who rely on software for primary instruction, or on online tutors who can interact with students in various locations, may help to meet some of the early implementation challenges that SES faces.
- **Offer an opportunity to collect student performance data efficiently to track provider effectiveness.** Many of the technology-based SES providers have automated their assessment, attendance, and reporting, providing an opportunity to have accurate and ongoing evaluation and sharing of student progress. This can be a great advantage in terms of coordinating services with schools, reporting to parents, and providing the basis to monitor and judge provider effectiveness.

Given the growing evidence base regarding their potential effectiveness, and the promise that education technology-based SES providers hold, state policymakers will need to find ways to facilitate their entry into the market, and to assure their quality once they begin to offer services.

### Current Status of Educational Technology Providers of SES

It is difficult to determine the exact number and describe the activities of technology-based SES providers currently offering services. Estimates regarding the number of active education technology-based providers of SES range from about 15 to 50.<sup>12</sup> An accurate count is hard to derive since states do not currently report this information consistently, and it may not be clear from each provider's description how much of their service is technology-based. Nevertheless, it is interesting to note that of the 15 most widely approved providers by the states (Table 3), at least six take an approach that employs a significant educational technology component (Table 4). Unfortunately, at present is impossible to estimate the number of students served by SES as a whole, or by any single provider.

While well-known "traditional" tutoring providers such as Kaplan, Sylvan, Princeton Review, and Huntington Learning Centers currently seem to dominate the market, and may incorporate technology into their services, it appears that others are leading the introduction of online or computer-based instruction and academic support. Some frequently approved educational technology-based providers, such as Failure Free Reading, Kaplan, and Lightspan employ computer-based instruction on-site and online, often

---

<sup>12</sup> Siobhan Gorman estimates on the low end, and several industry representatives provided the author figures ranging from 20 to 50. However, all these are estimates based on limited evidence. All the experts consulted for this paper predicted a growth for this sector in the coming years. The SESQ Center is currently researching all approved providers to develop an accurate count. When complete, this information will be provided at [www.tutorsforkids.org/state.asp](http://www.tutorsforkids.org/state.asp).

supported by live instructors. Others, such as Babage Net School serve as "virtual schools." Finally, providers such as Brainfuse, Tutor.com, and SMARTHINKING deliver a variety of online tutoring and academic support services. What unites these providers as a group is that they require access to computers and reliable online connections for the success of their services.

According to industry representatives and other observers, *access*—to students, schools, and necessary equipment and connectivity—is the key limiting factor in the growth of education technology-based SES providers.<sup>13</sup> As Christopher Gergen, one of SMARTHINKING's founders and now a vice president at K12 puts it, "Getting approved is one-eighth of the battle." The big challenge according to Gergen is getting into the schools, or to the students to deliver services. While in a sense, this is a challenge for all SES providers, Mark Schneiderman of the Software and Information Industry Association observes that, "Perhaps a unique online SES issue is simply getting students access to an online computer with sufficient bandwidth." Education technology-based SES providers face at least two major challenges in terms of access:

---

<sup>13</sup> In preparation for this paper, the author communicated with the following education technology industry representatives: Christopher Gergen, Vice President for New Markets at K12, a leading provider of online curriculum and instructional tools to schools and homeschooling families ([www.k12.com](http://www.k12.com)) and a founding partner of SMARTHINKING ([www.smarthinking.com](http://www.smarthinking.com)); Steven Pines, Executive Director of the Education Industry Association (EIA), a professional network of more than 800 educators and education businesses dedicated to delivering and advancing the education of children and youth ([www.educationindustry.org](http://www.educationindustry.org)); and Mark Schneiderman, Director of Education Policy at the Software and Information Industry Association, the principal trade association of the software and digital content industries ([www.siiia.net](http://www.siiia.net)). Policy statements regarding SES implementation by EIA and SIIA addressed to leaders of the U.S. Department of Education were also reviewed. These documents are available on the websites of the respective organizations.





**Table 3: Most Frequently Approved SES Providers**

Provider Name	Website	Number of States in which Approved
Kaplan K12 Learning Services	<a href="http://www.kaplan.com">http://www.kaplan.com</a>	37
Sylvan Learning Systems, Inc.	<a href="http://www.sylvanlearning.com">http://www.sylvanlearning.com</a>	33
Kumon Math and Reading Centers	<a href="http://www.kumon.com">http://www.kumon.com</a>	32
The Princeton Review, Inc.	<a href="http://www.review.com">http://www.review.com</a>	27
Huntington Learning Centers, Inc.	<a href="http://www.huntingtonlearning.com">http://www.huntingtonlearning.com</a>	27
Lightspan, Inc.	<a href="http://www.lightspan.com">http://www.lightspan.com</a>	24
HOSTS	<a href="http://www.hosts.com">http://www.hosts.com</a>	23
Club Z! In Home Tutoring Services	<a href="http://www.clubztutoring.com">http://www.clubztutoring.com</a>	22
Babbage Net School	<a href="http://www.babbagenetschool.com">http://www.babbagenetschool.com</a>	21
Brainfuse Online Instruction	<a href="http://www.brainfuse.com">http://www.brainfuse.com</a>	20
I CAN Learn Education Systems	<a href="http://www.icanlearn.com">http://www.icanlearn.com</a>	20
Tutor.com, Inc.	<a href="http://www.tutor.com">http://www.tutor.com</a>	19
EdSolutions, Inc.	<a href="http://www.edsolutionsinc.com">http://www.edsolutionsinc.com</a>	18
Lindamood-Bell Learning Processes	<a href="http://www.lindamoodbell.com">http://www.lindamoodbell.com</a>	17
Smarthinking, Inc.	<a href="http://www.smarthinking.com">http://www.smarthinking.com</a>	16

Source: SESQ Center 2004

- Some districts and schools are reluctant to make their computer facilities available to outside providers.** While districts have a host of legitimate concerns—particularly about security, wear and tear on equipment, and other costs associated with keeping computer labs open for extra hours—providers often complain that schools are either denying access to them outright or are charging exorbitant fees for the use of facilities. In some cases this lack of access to schools, currently the most convenient location for eligible students to receive services, seems to limit the benefits that might be derived from SES.
- Although education technology providers offer services that may be available “any-time, anywhere,” students may have limited access to those services outside of the school day.** Currently, most online services require individual, extended access to a computer, often equipped with sophisticated software and hardware. Students served by SES may not have access to this equipment or connectivity outside of school, or even at the schools some attend. In addition, given transportation issues, students living at a distance from school, including those living in rural or remote areas, may not be able to receive services at school because of scheduling constraints.

**Table 4: Examples of Frequently Approved Technology-Based SES Providers**

Provider	States in Which Approved
Kaplan K12 Learning Services <a href="http://www.kaplan.com">http://www.kaplan.com</a> Approved in <b>37</b> states	AL, AZ, AR, CA, CT, DE, DC, FL, GA, ID, IL, IN, IA, KY, MD, MA, MI, MN, MS, NE, NV, NH, NJ, NY, ND, OH, OK, OR, PA, RI, SD, TN, TX, VT, VA, WV, WI
Kaplan's program helps students academically by providing live instruction from highly qualified instructors, or on-line instruction through multimedia Internet-based courses developed by educators. All of Kaplan's programs include research-based curriculum.	
<b>Lightspan, Inc.</b> <a href="http://www.lightspan.com">http://www.lightspan.com</a> Approved in <b>24</b> states	AL, AR, CA, CO, DC, ID, IN, IA, KS, KY, MN, MS, MO, MT, NV, NH, NJ, NM, PA, SC, TN, TX, VA, WI
Lightspan, Inc. includes interactive software, school and home learning activities, teacher materials, on-site and technology-based professional development, and student assessment. It is research-based and aligns to individual state standards, textbooks, standardized tests, and professional association standards.	
Babbage Net School <a href="http://www.babbagenetschool.com">http://www.babbagenetschool.com</a> Approved in <b>21</b> states	AL, CA, GA, ID, IL, IN, KY, MI, MN, MO, MT, NJ, NY, ND, OH, OK, PA, SD, VA, WA, WV
The Babbage Net School is a virtual school offering on-line, interactive courses in English, Math, Science, Social Studies, SAT, Foreign Language, Advanced Placement, Music, and Art. These courses are taught by certified teachers in a virtual classroom featuring interactive audio, synchronized web browsing and a shared whiteboard.	
Brainfuse Online Instruction <a href="http://www.brainfuse.com">http://www.brainfuse.com</a> Approved in <b>20</b> states	AR, CA, CO, DE, FL, GA, IL, IN, KY, MA, MO, MT, NH, NJ, OH, OK, SD, TX, VT, WI
Brainfuse provides instant, unlimited access to tutors. With Brainfuse, students and teachers communicate by drawing on a virtual blackboard, typing instant messages and even speaking through online audio.	
<b>Tutor.com, Inc.</b> <a href="http://www.tutor.com">http://www.tutor.com</a> Approved in <b>19</b> states	AL, AR, CA, DE, GA, IN, KY, MI, MS, NV, NH, NJ, NM, NY, OH, OK, PA, VT, WV
Tutor.com is an on-line service that offers students help with their homework. It is typically offered through local and school libraries and is available seven days a week. The students are connected with a tutor who assists by walking through the student's homework.	
<b>Smarthinking, Inc.</b> <a href="http://www.smarthinking.com">http://www.smarthinking.com</a> Approved in <b>16</b> states	AL, CA, CO, GA, HI, KS, KY, MI, NV, NJ, OK, TX, VT, VA, WV, WI
Smarthinking, Inc. provides people, technology and training to help secondary and post-secondary institutions offer their students online tutoring and academic support. Schools, colleges, universities, government agencies, textbook publishers and other education providers work with Smarthinking to increase student achievement and enhance learning by connecting students to qualified educators anytime, from any Internet connection.	
<b>Failure Free Reading</b> <a href="http://www.failurefree.com">http://www.failurefree.com</a> Approved in <b>13</b> states	AL, AR, FL, GA, MA, MS, NJ, NC, OH, PA, TN, TX, VA
Failure Free Reading's materials include a combination of print, talking software, and teacher directed lessons. Software includes spelling, listening comprehension, story books, language development activities and more. Software also has Spanish resources for teaching English to Spanish speaking students.	

Source: SESQ Center 2004

**Note:** These provider descriptions are drawn from each organization's promotional literature. The table does not represent an endorsement of the selected programs, but rather demonstrates the range of services provided by widely adopted providers. Of the most frequently approved providers, there are several that seem to use education technology in their program or method of delivery. The providers listed above use either computer-assisted instruction or online services as a core aspect of their tutoring and academic support.

Other challenges exist to the effective delivery of SES by education technology-based providers. While these providers have some potential advantage in reaching students once they have signed up, the fact that they may not have an “on the ground” presence in many communities makes their initial marketing job more difficult. Many “traditional” tutoring organizations—whether large “national” or small “mom and pop” operations—will likely be better known in the community or in schools, and be able to build on established relationships. Marketing is expensive, and as one online provider commented, “It’s just not cost-effective to do outreach in a rural county.”<sup>14</sup> Thus, although online providers may offer one of the few alternatives in “hard to reach” areas, they may restrict their services in these because of cost considerations. As well, these providers may not be able to offer services to all the types of students eligible for services, because of language, physical, or other barriers. Finally, consumers of SES may be wary of technology-based services, since they may be less familiar with them and the services may seem unproven in meeting the needs of their children. This wariness may have some basis. As Dr. Steven Ross observes, more research needs to be done regarding the potential effectiveness of SES technology-based services, especially for children whose lack of success is in part due to the fact that they have not yet developed the skills to be independent learners—a quality that may be key to the success of a number of technology-based programs.

### Prospects for SES: Creating Opportunities

Despite the challenges faced by technology-based SES providers, they offer great promise in helping to assure that all eligible students are provided effective tutoring and academic support services. Some SES implementation challenges are specific to technology-based providers (for example, greater access), but many other general challenges apply to them as well (greater participation, im-

proved provider quantity and quality). Thus, for SES to succeed, over the next few years, **states, districts, and providers** must work together to:

- Increase access to SES, including educational technology-based services, in hard to reach areas (whether urban, suburban, or rural).
- Improve the information available to consumers regarding their SES options, including educational technology-based services.
- Expand the number of high quality educational technology-based SES providers.
- Conduct additional research and evaluation of all providers, including educational technology-based SES providers.

The following suggestions regarding how districts, states, and providers can cooperate to accomplish these goals are based on recent SES reports and policy briefs as well as on extensive interviews and conversations with program providers, researchers, state and district officials, and representatives of community organizations.

A recent study, issued by the Office of Innovation and Improvement of the U.S. Department of Education, highlights some early examples of effective SES implementation practices drawn from five **districts** and points out the key role that they can play in assuring the program’s success.<sup>15</sup> According to the report, for SES to succeed, districts must (a) embrace the spirit of SES, (b) build relationships with providers, (c) reach out to inform parents, and (d) set clear goals and track progress. Given the innovative and challenging nature of SES implementation, districts must early on move from a “compliance mode” to one that sets a positive tone, seeks out solutions, and plans for success. Key to this is seeing SES as a significant new opportunity. As one district administrator in the

<sup>14</sup> Gorman, *The Invisible Hand of No Child Left Behind*.

<sup>15</sup> U.S. Department of Education, Office of Innovation and Improvement. *Creating Strong Supplemental Educational Services Programs*. Washington, DC, 2004. [www.ed.gov/admins/comm/suppsvcs/sesprograms](http://www.ed.gov/admins/comm/suppsvcs/sesprograms)

study points out, “The turning point for us come when we began to see supplemental services as a great way to give extra support to the kids who needed the most help.”

Furthermore, although states set many of the policies that govern the operation of the program and the approval and monitoring of providers, districts have a significant opportunity to improve services by building strong working relationships with providers. The OII study provides a number of examples and suggestions on how districts can:

- **Find out about, and create accurate profiles of providers who will work in the district.** A number of districts in the study have provided families more extensive program information than is currently available through the state approval procedure. This raises awareness among parents of their options and promotes better choices. It also allows district to get to know their providers and to establish a closer working relationship.
- **Work out reasonable provider access to facilities.** This is *the* major complaint heard from program providers using technology-based approaches, although many other providers share the same concern. Some districts have not only encouraged the use of school site space, but also worked with community organizations to identify additional convenient sites to deliver services.
- **Use contracts that specify clear expectations for all parties and follow procedures that establish a fair competitive environment.** A contract that specifies responsibilities regarding attendance, billing, reporting, and performance is key to protecting families, students, schools and providers alike. The OII study points out that “districts must strive to be impartial brokers in dealing with and communicating about SES providers.” Further, it cautions that if the “district itself is also an SES provider, it is especially important that it not inadvertently set up a system giving it an unfair competitive advantage over other providers.”

- **Increase communication and coordination between providers and schools.** Key to the success of SES is a careful coordination of in-school and out-of-school instruction. For instance, several districts in the OII study encourage their teacher to share student data with providers to support the development of individual SES student learning plans.
- **Expand the number and type of providers in the district.** Although most of the work in expanding the provider base for SES will fall to states, districts should be alert to opportunities to encourage potential local providers—tutoring organizations, community and faith based organizations, and others—to apply for state approval. In “hard to reach” areas, the district may want to partner with these organizations to make sure that all eligible students have an opportunity to receive services.

A recent Supplemental Educational Services Quality (SESQ) Center policy brief suggests additional steps that districts and states can take to improve SES implementation by sharing information and coordinating activities.<sup>16</sup> For example, **districts** can help states by:

- **Offering input about the criteria and process for approving providers.** While states are charged with the provider approval process, and need to play close attention to the SES provisions outlined in NCLB and the U.S. Department of Education’s *Supplemental Educational Services Non-Regulatory Guidance*, they should also seek out the advice of districts that are working hard to implement the program. This will help to make sure

---

<sup>16</sup> The Supplemental Educational Services Quality (SESQ) Center—a project funded through a grant from the U.S. Department of Education—is working with a number of organizations to provide sample materials, networking opportunities, training, and other assistance to help states, districts, and providers improve the implementation of the SES program. The policy paper is available at [www.tutorsforkids.org/docs/policybrief6804final.pdf](http://www.tutorsforkids.org/docs/policybrief6804final.pdf).

that as far as is feasible district concerns are incorporated into state actions.

- **Giving materials developed by the district to state officials to help other districts implement SES.** States can play an important role in identifying and sharing useful materials and practices of “early implementing” districts that can act as exemplars to guide other districts as they begin to provide SES.
- **Sharing feedback and data about provider effectiveness with state officials responsible for evaluating providers.** Districts are likely to collect much of the data and some performance information needed to judge the quality and effectiveness of SES providers. Therefore states and districts must work together closely to help states determine which providers should continue to offer services, and which should be dropped from the state list. Additionally, this information can help states develop technical assistance that promotes the entrance of more high quality providers into the market.

Similarly, **states** can support districts by:

- **Coordinating the timing of notification about eligible schools and approved providers to correspond with district timelines.** Many eligible families are concerned that they do not receive enough time to learn about and select SES providers. States can help districts do their job better by providing “early warning” about which schools are *likely* to have to offer SES in the future, and by adopting a “rolling” application process for SES provider approval to assure a steady stream of providers in all eligible districts.
- **Developing sample materials for communicating with eligible families and contracting with providers.** Many of these materials are likely to be applicable statewide. States can help assure effective and consistent implementation if they provide districts these supporting tools. States should consider expanding their guidance to families on how to make effective SES choices for their children, including how to se-

lect from among education technology-based providers.<sup>17</sup>

- **Providing guidance regarding contracting with technology-based providers.** Districts may benefit from state guidance in the development of contracts that recognize the unique feature of online providers in terms of service delivery. The standard performance measures for service delivery—e.g., number, length, and frequency of sessions, and “attendance”—may not accurately describe the design or measure the effective delivery of online services. States should consider working with districts and online providers to determine fair, accurate measures that allow districts to assure effective and consistent delivery of services, while at the same time recognizing that technology-based services may need to be measured in differently.
- **Creating opportunities for officials from different districts to exchange information and materials on SES.** Sharing of information at events such as state SES “summits” for district leaders can build further support for the program and promote a valuable knowledge exchange. The creation of regular emails or newsletters can support this sharing of best practices.
- **Providing technical assistance to potential district-based SES providers.** States can encourage the growth of choice at the district level by making the SES application process widely known, encouraging “non-traditional” applicants such as local community or faith based organizations to apply, and providing local organizations support in the application and start-up process.

---

<sup>17</sup> Unfortunately, specific consumer information on choosing effective online providers does not exist. However, the SESQ Center provides guiding questions for parents to ask SES providers in general at [www.tutorsforkids.org/families/infoforfamilies.asp](http://www.tutorsforkids.org/families/infoforfamilies.asp).

- **Developing an effective evaluation plan to monitor the quality of SES providers.**<sup>18</sup> This is perhaps *the* major challenge facing states that have implemented SES over the past two years. While states continue to explore the standards and evidence that will be applied in the provider re-approval process, they should consider the ways to develop a statewide technology-based evidence gathering and analysis system that will provide the accurate and comparable data needed to assure long-run program quality. As well, states need to develop effective approaches for measuring the impact of technology-based SES providers.

Providers can also do their part to support states and district implementation. To accomplish this:

- **Providers or their industry associations should consider adopting “codes of conduct” or “practice standards” that will promote consumer confidence in their services.** For example, the Education Industry Association, in cooperation with the Better Business Bureau, has developed standards for education services providers of tutoring services.<sup>19</sup>
- **Industry associations should provide support and guidance to their members so that they can produce solid evidence that they are offering effective services.** For example, the Software and Information Industry Association provides its member a *Scientifically Based Re-*

*search: A Guide for Education Publishers & Developers*, in support of members’ efforts to improve the evaluation of their products.<sup>20</sup>

- **Developers should work with districts to provide consumers accurate information on SES.** Providers that team with districts and develop a solid working relationship can be highly effective in spreading the word about the value and availability of supplemental services.

Finally, while this paper has concentrated on the “supply side” issue of improving the quantity and quality of technology-based SES providers, the “demand” side should not be overlooked. Nearly every report on early implementation of SES notes the generally low level of demand for these services from families. While this is the case, as Siobhan Gorman points out, as the SES program matures “the issues it will face are likely to be less about participation and more about access and quality.” As a result of state and district level efforts, and those of local and national community organizations and technical assistance providers, families are likely to receive more and better information about available SES choices.<sup>21</sup> Nevertheless, states, districts, and providers should continue to work together to make sure that **families** know what supplemental services are available and how to use them, have sufficient time to decide whether to take advantage of SES, and receive solid guidance so that they can make the best choices in the interests of their children.

## Conclusion

In her report on early implementation, Siobhan Gorman observes that the “supplemental services program is perhaps the federal government’s largest free-market experiment going on in education.” The “marketplace” for SES is still being

---

<sup>18</sup> The Council of Chief State School Officers provides some initial guidance on the state approval and evaluation process in its *SEA Toolkit on Supplemental Services*, available at [www.ccsso.org/content/pdfs/SSPToolkit.pdf](http://www.ccsso.org/content/pdfs/SSPToolkit.pdf).

<sup>19</sup> See [www.educationindustry.org/newsletter/newsletter.php?id=89](http://www.educationindustry.org/newsletter/newsletter.php?id=89). Several years ago, the American Association of School Administrators worked with a standards development panel that included education technology industry representatives to issue *Standards for Web-Based Education Products and Services: Guidelines for K-12 Educators*. The guide may be downloaded at [www.aasa.org/issues\\_and\\_insights/technology/Ed.com\\_brochure.pdf](http://www.aasa.org/issues_and_insights/technology/Ed.com_brochure.pdf).

---

<sup>20</sup> See [www.siiia.net/education](http://www.siiia.net/education).

<sup>21</sup> The SESQ Center provides links to a number of resources in support of SES at [www.tutorsforkids.org/resources.asp](http://www.tutorsforkids.org/resources.asp).



created. Many consumers are just learning about the services and how to use them. A variety of providers are still testing the market, or just finding out about the opportunity to offer services. Finally, the market's regulators and administrators are still working to develop a set of ground rules that assure a high quality supply of services.

The emerging SES marketplace presents clear and promising prospects. SES expands access to high quality tutoring programs by giving low-income families the chance to choose free, quality services for their children. This program is an unprecedented opportunity to benefit hundreds of thousands of students currently struggling academically. Providers have a significant opportunity to use educational technology to improve the services that students receive. Finally, state policymakers and of-

ficials can make key contributions to assure that the promise of SES is turned into effective academic support for our nation's children.

*Steve Fleischman is a principal research scientist at the American Institutes for Research (AIR), and the director of AIR's Supplemental Educational Services Quality (SESQ) Center. The SESQ Center ([www.tutorsforkids.org](http://www.tutorsforkids.org)) is a U.S. Department of Education funded national resource center that helps low-income families take advantage of the opportunities provided by the No Child Left Behind Act to provide their children free tutoring and extra academic help they may need. The views expressed in this paper are the opinions of the author, and may not represent the position of the U.S. Department of Education, AIR, or the SESQ Center. Mr. Fleischman welcomes comments on this paper, which should be addressed to [sfleischman@air.org](mailto:sfleischman@air.org).*



## References & Resources

### Publications:

**Creating Strong Supplemental Educational Services Programs.** Part of the Innovations in Education series, produced by the U.S. Department of Education, Office of Innovation and Improvement. [www.ed.gov/admins/comm/suppsvcs/sesprograms/index.html](http://www.ed.gov/admins/comm/suppsvcs/sesprograms/index.html)

**Invisible Hand of No Child Left Behind?** Siobhan Gorman for the American Enterprise Institute (AEI). [www.aei.org/publications/pubID.19730,filter.all/pub\\_detail.asp](http://www.aei.org/publications/pubID.19730,filter.all/pub_detail.asp)

**SEA Toolkit for Supplemental Educational Services.** Council of Chief State School Officers. [www.ccsso.org/content/pdfs/SSPToolkit.pdf](http://www.ccsso.org/content/pdfs/SSPToolkit.pdf)

**Standards for Web-Based Education Products and Services: Guidelines for K-12 Educators.** American Association of School Administrators. [www.aasa.org/issues\\_and\\_insights/technology/Ed.com\\_brochure.pdf](http://www.aasa.org/issues_and_insights/technology/Ed.com_brochure.pdf)

**Supplemental Educational Services (SES): How states—and schools—are dealing with the new rules.** Dennis Pierce for eSchool News. <http://www.eschoolnews.com/resources/reports/ses/index.cfm>

**Supplemental Educational Services Non-Regulatory Guidance.** U.S. Department of Education. [www.ed.gov/policy/elsec/guid/suppsvcsguid.pdf](http://www.ed.gov/policy/elsec/guid/suppsvcsguid.pdf)

### Websites:

**Center for Applied Research in Educational Technology** (<http://caret.iste.org>). CARET works to bridge education technology research to practice by offering research-based answers to critical questions regarding the uses and effectiveness of educational technology.

**Office of Innovation and Improvement (OII).** U.S. Department of Education. OII makes strategic investments in innovative educational practices through two dozen discretionary grant programs and coordinates the public school choice and supplemental educational services provisions of the Elementary and Secondary Education Act as amended by No Child Left Behind. [www.ed.gov/about/offices/list/oii/index.html](http://www.ed.gov/about/offices/list/oii/index.html)

**Education Industry Association.** EIA is a professional network of small and large education businesses dedicated to delivering and advancing the education of all learners by promoting education reform through entrepreneurship. It's newsletter reports regularly on education industry developments in the field of supplemental services. [www.educationindustry.org](http://www.educationindustry.org)

**Supplemental Educational Services Quality (SESQ) Center.** The Supplemental Educational Services Quality (SESQ) Center helps low-income families take advantage of a new opportunity provided by the No Child Left Behind Act to get their children free tutoring and extra academic help they may need. The Center was established through a grant to the American Institutes for Research from the Office of Innovation and Improvement of the U.S. Department of Education. [www.tutorsforkids.org](http://www.tutorsforkids.org)

### Research Studies:

Fletcher, J.D. (2003). "Does This Stuff Work? A Review of Technology Used to Teach," TechKnowLogia, January-March.

Kulik, J. (1994). "Meta-Analytic Studies of Findings on Computer-Based Instruction." In E.L. Baker and H.F. O'Neil, Jr. (Eds.) Technology Assessment in Education and Training. Hillsdale, NJ: Lawrence Earlbaum Associates.





Kulik, J. (2003). *Effects of Using Instructional Technology in Elementary and Secondary Schools: What Controlled Evaluation Studies Say*. Arlington, VA: SRI International.

Solomon, L. (1999). *Cost-effectiveness Analysis of the West Virginia Basic Skills Computer Education Program*. Santa Monica, CA: Milken Family Foundation.

## Appendix A: Supplemental Educational Services Definitions

Source: U.S. Department of Education. Supplemental Educational Services Non-Regulatory Guidance (August 22, 2003). p. 39. Available at [www.ed.gov/policy/elsec/guid/suppsvcsguid.pdf](http://www.ed.gov/policy/elsec/guid/suppsvcsguid.pdf).

### Appendix A: Definitions

**Eligible Child:** Eligible students are students from low-income families who attend Title I schools that are in their second year of school improvement, in corrective action, or in restructuring. Eligibility is thus determined by whether a student is from a low-income family and the improvement status of the school the student attends [Section 1116(e)(12)(A)].

**Eligible School:** A Title I school that must provide supplemental educational services. This includes (1) a Title I school that does not make adequate yearly progress by the end of the first full school year after having been identified as a school in need of improvement [Section 1116(b)(5)]; (2) a Title I school that is in corrective action [Section 1116(b)(7)]; and (3) a Title I school identified for restructuring [Section 1116(b)(8)].

**Provider:** A provider of supplemental educational services may be a public or private (non-profit or for-profit) entity that meets the State's criteria for approval. Potential providers include public schools (including charter schools), private schools, LEAs, educational service agencies, institutions of higher education, faith- and community-based organizations, and private businesses. A provider (1) has a demonstrated record of effectiveness in increasing student academic achievement; (2) can document that its instructional strategies are of high quality, based upon research, and designed to increase student academic achievement; (3) is capable of providing supplemental educational services that are consistent with the instructional program of the LEA and State academic content standards, (4) is financially sound, and (5) abides by all applicable Federal, State, and local health, safety, and civil rights laws [Section 1116(e)(12)(B) and Section 1116(e)(5)(C)].

**Supplemental Educational Services:** Supplemental educational services are additional academic instruction designed to increase the academic achievement of low-income students in low-performing schools. These services may include academic assistance such as tutoring, remediation and other educational interventions, provided that such approaches are consistent with the content and instruction used by the local educational agency and are aligned with the State's academic content standards. Supplemental educational services must be provided outside of the regular school day. Supplemental educational services must be high quality, research-based, and specifically designed to increase the academic achievement of eligible students. [Section 1116(e)(12)(C)].