Executive Summary:

Online learning should be the only accepted practice for supplemental educational services. We have to radically change our pedagogy in order to meet the needs of SES students. The true impact of the Internet is just beginning to be felt in distance learning, homeschooling, and tutoring. Online instruction vastly improves the access, quality and speed of information, in order to enable the individual to develop knowledge like never before with anytime, anywhere learning. The real value in online educational content is not simply in putting existing content online, but taking advantage of the Internet's unique attributes to create new content. The key is to change educational programming, reconsidering how knowledge is obtained, and then make use of the advantages this powerful technology offers. For example, what inner city student in New York, Chicago, or Los Angeles wouldn't want to connect with students in Asia or South America for learning? Online learning means American students all over the world would always have access to their education, and those students who need academic support outside the construct of the traditional classroom would have the opportunity to succeed. “On average, students seem to perform equally well or better academically in online learning” (NCREL, 2005). More of the same instruction in the same modality isn't serving kids who are already failing. More of the same instruction doesn't impart knowledge or understanding.
To this end, we advocate an online, learner-centered approach to instruction.

- The research in this report provides information regarding understanding online education and outlines tools necessary for assessing the caliber of online programs. This report also defines specific constructs of quality programs and how adopting such online learning establishes a sustainable and nurturing educational environment for the SES program.

- The sole use of Internet-based, online learning for SES programming provides a platform for a paradigm shift in education as we know it today. The proven methodology provides a model for all educational programs in the future.

- Online education levels the playing field for all students. District, city, and state limitations are lifted in online education. Using the resources of the Internet to reinforce concepts or skills being taught provides a creative and unique way for educators to take advantage of a ubiquitous tool that is not being used to its full potential in the current education system.

I. "Online learning’ as operationalized for this research:

Online learning is Internet based, using the resources of the Internet, to reinforce concepts or skills being taught. Those of us endeavoring to better education have an opportunity to prove our usefulness to students in a paradigmatic expression of individualized education through innovative use of technology. We recommend use of this medium to its full unique potential. Online education fundamentally differs from the educational environment of the traditional classroom, thus affording SES students a new path to academic success. Schools should offer a radically different pedagogical structure in order to meet the needs of SES students, because these students’ academic needs are not being met in the traditional classroom.
II. Misconceptions of "online learning" clarified:

Current data is misleading, claiming any and all instruction that occurs through the Internet "online learning" when much of this instruction is nothing more than scanned copies of the same materials used in the traditional classroom. The term “online learning” has been muddied as those claiming to use the medium either do not understand the qualitative difference between traditional classroom instruction and online instruction, or they claim use of technology in order to fulfill administrative requirements for such without providing authentic online instruction. Lack of teacher training in the public school system for innovative, thoughtful, and creative use of technology often stymies effective teaching online.

To be clear,

Online education powerfully combines aspects of distance learning and open learning with the expertise of an experienced online instructor who guides the learning process. Distance learning is generally defined as any mode of learning where the study takes place wholly at home but the materials are still "physical", like books, cassettes, CD-ROMs, and videos. Open learning study takes place off site the majority of the time, but requires some infrequent attendance at a center. It includes mediums that are both physical and electronic. Online learning study takes place over the Internet, either live or via email lessons sent to the student's inbox.

Current research would have us believe that the need for online learning is already being met, that K12 online learning is the direction education is already headed. Research states that seven hundred thousand students across the U.S. in grades K-12 were enrolled in online learning in 2006, and 2007-2008 enrollment estimates were at 1,030,000 (Picciano & Seaman, 2009) and that K12 Internet-based education is growing by 30 to 47 percent each year (Newman, Stein, & Trask, 2003; Picciano & Seaman, 2007). "Forty four states have significant supplemental online learning programs, or significant full-time programs” (Watson, et al., 2008, p. 8). Other states are in the planning stages for online learning programs. Seventy one percent of school districts that currently offer distance education programs are planning to grow their programs in the next year (NCES, 2008).
While these statistics may be accurate, what is lacking is a clear definition of what online learning looks like in practice. Defining online courses, as those that rely on eighty percent of instruction online is merely the first step in defining online education. We propose a definition that clarifies some of the misconceptions teachers, administrators, and students may have about online education. These include concerns that online instruction leaves the teacher out of the educational process, that average or below-average performing students in traditional classrooms fare even more poorly in online courses, and that online courses are inferior to traditional classroom settings (Picciano & Seaman, 2009).

No Child Left Behind provides for the use of technology through Title I funds, the vast majority of students today have access to the Internet, and schools are developing programs for online education. The structure is there, but the content is lacking.

Advantages of Online Learning for K12 SES:

I. Online learning is cost effective and efficient.

- Education via the Internet shortens the amount of time needed to invest in a full day’s worth of learning. Distance learning students only need to be online four to five hours a day because there are no passing periods, bathroom breaks, or lunchtime to account for. The time spent in the online educational process is concentrated.

- Students are less likely to engage in off-task behavior or distract peers from the learning process in online education (Bonk & King, 1998). The tendency for students to engage in task-driven interaction online more than 90 percent of the time, and negative interaction such as derogatory remarks regarding peer work is almost nonexistent (Bonk, Hansen, Grabner-Hagen, Lazar, & Mirabelli, 1998).
II. Online education solves, in part, the U. S. teacher shortage

- Fewer teachers are needed to reach a greater number of students. Online learning has both synchronous and asynchronous components, thus giving teachers and students the flexibility to suit busy schedules and work around time constraints.

- The teacher role becomes that of guide, facilitator, and manager of the learning process. Online learning is student-centered, with the teacher posing questions, giving feedback, and generally keeping the focus on student inquiry (Bonk & King, 1998; Sammons, 2003).

- Students have access to intellectual perspectives of learners all over the world (Bonk, Angeli et al., 2001).

III. Use of technology in education is mandated by NCLB for Title I funds.

- Monies are already allocated and specifically earmarked for learning via technology. Part D, section 2401, entitled “Enhancing Education through Technology Act of 2001” of The Elementary and Secondary Education Act as Reauthorized, stipulates that Title I monies are to be used, in part, to fund effective use of technology “to improve student academic achievement” (U. S. Department of Education [USDE], 2001). SES is a critical area for improving student achievement.

- NCLB mandates that students attending Title I schools that fail to make AYP for two consecutive years must be provided tutoring services (USDE, 2005).

- The act further states that its goal is to “encourage the establishment or expansion of initiatives, including initiatives involving public-private partnerships, designed to increase access to technology” (USDE, 2001).
Establishing partnerships with private educational entities that provide online education aligns with this objective.

IV. Internet-based learning paves the way for assessment based on nationalized standards.

- There is a call for nationalized standards, and online learning aligns with that call. Without nationalized standards, NCLB cannot be measured (Perlstein, 2007). States that make AYP by their own standards, when assessed by standards of another state, fail (Annenberg Public Policy Center of the University of Pennsylvania, 2004; Fordham, 2009).

- Online learning is an efficient, cost-effective means for establishing assessment programs based on nationalized standards. Additionally, programs can provide formative and summative assessments. This is to say that software can gauge student achievement both during the assessment process and at set points in the school year.

- The Enhancing Education through Technology Act of 2001 stipulates its endeavor “to assist every student in crossing the digital divide by ensuring that every student is technologically literate by the time the student finishes the eighth grade, regardless of the student’s race, ethnicity, gender, family income, geographic location, or disability” (USDE, 2001). Students in SES particularly need positive and constructive online learning opportunities. This benefits not only the students (see section VII), but also the schools in which they are enrolled.

- Because there is a written record of student work and teacher engagement, assessment of students and teachers is more easily achieved throughout the learning process (Bonk, Wisher, & Lee, 2003).
V. Students are already overwhelmingly Internet savvy.

- In discussing advantages of using an online program for SES, policy makers should note that 87 percent of all youth between the ages of 12 and 17 use the Internet (Pew, 2005). This is a familiar medium for young learners today, one which has already captured students' interest. Students enter an online program with a sense of confidence with the medium. Outdated technology programs and tools will turn these techno-savvy students away from online learning, so online programs need to be on the cutting edge.

- Online instruction is still in its infancy, and K-12 educators are just beginning to recognize its value. America's young people have embraced the computer and the Internet as their own. Half of all students age eight or older use the computer every day and nearly 75 percent have a computer at home. Students use the Internet for information gathering, email, and chat. Online learning is a natural extension of their use of the Internet and online learning programs can provide focus and guidance to increase students' natural need to learn (Angulo, 2001). Quality programs provide all instructional material, give immediate feedback, facilitate use of email, and monitor programs like Twitter and Facebook to create forums for online communities.

- Online learning encourages students to share their work, providing a safe and familiar environment to do so. Students' familiarity with the medium fosters feelings of competence and self-confidence (Bonk, Wisher, & Lee, 2003).

- Online learning additionally provides educators the opportunity to guide students to quality information on the Internet. Students learn how to use critical thinking skills to become even more skilled in navigating the wealth of information available on the Internet (Freberg, 2000; Girod & Cavanaugh, 2001).
VI. Online learning accommodates working parents’ schedules.

- Parental involvement through the NCLB initiative is also to be funded by Title I, and an infrastructure that provides access for students in need is also specified (USDE, 2001).

- SES students need parental involvement, and online education allows busy, working parents to be part of their children’s academic endeavors. Students whose parents are involved in the learning process show significantly improved test scores and are more likely to pursue higher education (Henderson & Mapp, 2007; Westat, 2001).

- Parents of all races, ethnicities, and socioeconomic levels overwhelmingly desire to support their children's education (Mapp, 2002).

- Single parent households increased almost 10 percent from 1980 to 2005 (ChildStats.gov, n.d.), leaving parents less time during the traditional school day to engage with school faculty and administrators. Online education allows parents to be more involved in their children's learning, because of the asynchronous aspect inherent in online programs.

VII. Acclimating students to online learning facilitates success at the university level and in the workplace.

- In 2005, nearly 2.3 million students were studying online at the university level, while an estimated 3.2 million students took at least one course via the Internet during the fall 2005 semester (Allen & Seaman, 2006). This number is therefore increasing each year.

- Research shows that positive interaction with technology is based on previous use (Valery & Lord, 2000). Acclimating students, especially those in SES who are struggling academically, at the K12 level will support future
success in higher education.

- Creating a nationwide SES program based on online learning establishes a marker for success for these students.

- Over 75 percent of workers between the ages of 18 and 24 use the Internet at work (National Center for Education Statistics [NCES], 2003), and the same conclusion regarding previous use of technology can be made here as well.

Assuring Quality Programs through Accreditation

Accreditation focuses on improving learning for all students.

Online SES instructional programs must be accredited by a recognized accrediting agency such as CITA, NCA, or SAS. Since the late 1800's, American schools and colleges have had their trustworthiness and quality validated through accreditation. The value of being accredited is that the quality of online education is validated through independent, self-study and on-site evaluation by educational professionals. As a result of the accreditation, the online program is more focused on improving student achievement.

Accreditation assures parents and the public that the online program is focused on raising student achievement, providing a safe and enriching online learning environment, adhering to high quality standards based on the latest research and successful professional practice, and maintaining an efficient and effective operation. Accreditation also extends across state lines, thus facilitating a consistent program for all U. S. students.

Accreditation provides the instructional staff with a proven process for raising student achievement. Online learning programs benefit from multiple resources including publications, current research, manuals, software, professional development, and
conferences. Through the accreditation process and resources, online programs improve their ability to analyze data and make sound educational decisions based on that data.

In addition to raising student achievement, accreditation eases the transition of students as they move from one online program to another accredited online program or into a regular school program. The regional nature of accreditation allows a receiving program in the same or another state to assess the quality of the online program and accept the incoming student's credits and academic record. This ease of transfer applies across the nation through reciprocal agreements among the regional accrediting agencies.

**Guidelines for Online Learning**

The online distance learning program is essentially any course that can be provided and followed outside the traditional classroom environment using the resources of the internet. Instructional content is provided through the use of:

- Desktop/Laptop Computers
- Electronic Notebooks
- Smart Phones/Handhelds

Online learning time is concentrated learning time. The model online learning program is both synchronous and asynchronous. It is not necessary to have constant teacher intervention. Rather, students maintain the flexibility to access content 24/7. The technology program will account for the time students are online. Four to five hours a day is sufficient for students to complete their instructional program since time is not needed for breaks, movement between classes and other daily routines.

Online education powerfully combines aspects of distance learning and open learning with the expertise of an experienced online instructor who guides the learning process. Distance learning is generally defined as any mode of learning where the study takes place wholly at home but the materials are still "physical," like computer programs, books, cassettes, CD-
ROMs, and videos. Open learning is where study takes place off site the majority of the time, but requires some infrequent attendance at a center. It includes mediums that are both physical and electronic. Online learning is where the study takes place over the Internet, either live or via email lessons sent to the student's inbox.

The online instructional program should include seven governing goals:

1. An online community is established and interaction is monitored by the teacher. An online community of learners increases the likelihood of success for SES students who have already been struggling for success. Teachers can guide the learning process and can more easily monitor student interaction, ensuring that those interactions are positive and constructive. The importance of the teacher/facilitator cannot be overstated. Without a social or emotional connection, technology further distances the learner from the desire to connect with the content (Palloff & Pratt, 1999).

2. Online instruction should follow a set format and needs to be consistent according to preset specifications across all SES programs, while adhering to national goals for learning.

   - **Introduction** - A brief statement explaining the topic of the lesson.
   - **Grade Level** - Lessons are cross-aged at Primary, Intermediate, Middle/Jr. High and High School. Lesson modules provide for a range of learning levels across each of the levels to meet students’ needs.
   - **Lesson Goals** - Goals and objectives are aligned to national and state learning standards in the major subject areas.
   - **Resources** - Links to quality websites are provided so that students can find information that reinforces or expands upon the skills or concepts taught in the study guide.
   - **Lesson Problem** – This sets the stage for learning by posing a question(s) to be answered before and after completing the lesson module as a self check for the student.
   - **Vocabulary** - Enriched vocabulary words, which may be new to students, are hyper-linked to an age-appropriate dictionary.
• **Study Guide** – This section teaches the skills and concepts that students need to be successful learners.

• **Activities** - Worksheets, experiments, projects, games that give the student practice in what s/he has learned from the Study Guide.

• **Extended Learning** - Additional thought provoking activities are provided to stimulate logical thinking, creative reasoning and critical thinking.

3. Assessment that includes immediate feedback should be customized to align with student progress through smart software which monitors results of student-self assessment, parent assessment and teacher assessment.

Four forms of assessment should be part of the program:

- **Self Assessment** - Student responds in writing before and after completing the lesson module using various techniques like KWL and other meta-cognitive strategies.
- **Parent Assessment** - Parent reviews both online and offline work, using it as a springboard for discussion.
- **Program Assessment** - Multiple Choice quizzes and exams should be automatically scored by the program.
- **Teacher/Facilitator Assessment/Feedback** – Comments and grading of assignments by the teacher/facilitator can be seen real time by both parent and student.

4. Parents need to be part of the teaching-learning process. Online learning lends itself well to parental involvement. The flexible nature of online learning is ideal for parents who don’t have time to meet with educators. Parental resources should be available for parents to review 24/7. Programs need to be simple and easy to use so that parents have equal access to the important information available to them. Children may be able to help their parents, but this should not be an expected part of the program.

5. Age appropriate Internet links need to be a part of each online lesson module, with smart programs checking for dead links. The links should support the concept or skill being taught.
6. Instructional lesson modules should ultimately be available for students from grades K-12.

7. While completing lesson modules, students will learn that the Internet is a tool that can enhance learning, independence, self direction and can provide for the efficient use and validation of reliable information.

**Guidelines for Model Programs**

When students are engaged in online learning, they should expect regular, structured feedback and criticism. A teacher should be available throughout the learning process to guide studies and answer questions. The teacher’s role is still of paramount importance in online education, but s/he becomes more of “a learning catalyst and knowledge navigator” (Volery & Lord, 2000, p. 216).

Model online learning programs effectively promote student learning and increase student knowledge in specific subjects and topics through targeted components detailed in each lesson module. They help students in the process of evaluating and synthesizing information by adhering to the following guidelines.

I. Online instructional modules which include interesting topics and colorful graphics make online education effective and inviting to the student.

Students use the Internet for information gathering, email, and chat. Online learning is a natural extension of their use of the Internet and well-developed online learning programs can provide focus and guidance to increase the student’s natural need to learn. The Internet-savvy student demands current technology and will be quickly bored with non-innovative use of such technology or outdated programs. With the use of the many valuable online educational resources, no place is more than a few clicks away.

II. Online learning students are not time-stressed.
Students focus on learning, instead of time, because programs manage information, provide resources, and are "open" 24 hours a day. This type of learning meets the needs of ALL types of learning. Students can take as much time as they want in completing their learning activities. Special education students and slower learners benefit from not having to compete with time in their learning activities. The lack of pressure from arbitrary deadlines meets the needs of students who need the freedom to learn at their own pace, particularly those in Special Education and for those students who are Limited English Proficient.

III. Online programs should include both online and offline activities for the student to complete.

Offline activities and extended learning reinforce critical thinking and problem solving skills. Assessment is used to test the student’s knowledge of the skills and concepts taught in the lesson module. Students are provided immediate feedback about their performance. Scores are recorded for students, parents and educators to review.

IV. A model online instructional program for K-12 students includes curricular areas of Language Arts, Mathematics, Science and Social Studies.

Curricular content should be created exclusively for online instruction. The program is accredited as a distance education program. Students earn credit for completing lesson modules when appropriate guidelines are followed.

IV. Students can login at any time 24/7 to work on lesson modules and/or assignments.

Several programs are offered including an Independent (Self-Guided) and a Guided (One-to-One). Programs are all-inclusive. No additional workbooks, texts or supplemental aids are necessary.

VI. The model online instructional program provides the following:
• The program meets National Goals for Learning in the areas of Language Arts, Mathematics, Science and Social Science and is designed for students from kindergarten through grade twelve.

• Each lesson module has several parts including an introduction, vocabulary, a lesson problem, statement of curricular standards, resources, study guide, activities, extended learning, and quizzes and exams.

• An adequate number of lesson modules are provided to fulfill the instructional requirement for students. These modules include a wide range of topics, informational web sites and interesting activities that help to create a unique learning experience.

• The program provides immediate feedback to students and parents. Multiple choice questions follow each study guide to check for comprehension and understanding of concepts learned.

• The program includes student and teacher/parent resources, discussion area, homework help, and unique email features.

• Lesson modules are written by educators in multiple subject areas. Students can work at their own ability level and at their own pace. The lesson modules emphasize achievement in basic skills for learning.

• The most important key to online learning is student success and students are more likely to succeed if the information is interesting and relevant for them.

• The original content of the lesson modules apply to real life situations that students can relate to, such as, creating a budget or reviewing a movie.

• The program is fully accessible through the Internet. There should be no plug-ins, or additional software with the program.
The depth of content, use of graphics, activities and inclusion of web sites make the typical online instructional program unique when compared to other educational programs and sites on the Internet.
References


