

Using the Internet to Build a Lifelong Love of Reading

1. Short Summary

StudyDog, Inc. addresses the most pressing educational need of young children, learning to read before fourth-grade. Nearly two-thirds of fourth-grade children fail to achieve proficiency in reading according to the National Assessment of Educational Progress. To address this challenge, StudyDog has developed a new class of on-demand educational software that emulates the performance of the ideal human teacher (i.e.; an expert), but with much less cost and more consistency and availability. The StudyDog on-demand system is the first to incorporate reading assessments, validated and correctly designed and scoped curriculum, the ability to keep the child engaged, and the technology to manage, measure and report reading progress for parents.

StudyDog is a company that believes that success in life starts with being able to read. StudyDog is used in more than 1,000 schools across the nation and internationally to supplement classroom reading instruction. More than 50,000 parents use StudyDog at home with their children. Children, using StudyDog, show increased interest and skill in reading, often overcoming their reluctance to read.

Recognizing the technological significance and the social impact of StudyDog, AOL has entered into a 6-year distribution agreement where they will sell StudyDog to their subscriber base.

2. Introductory Overview

StudyDog teaches children to read. It was built to address the needs of children having difficulty learning to read, and it is effective teaching all children the early reading skills they need to become successful.

For more than three decades, the National Assessment of Educational Progress, the Nation's Report Card, has documented the difficulty children have reaching proficiency in reading with nearly two out of three children failing to reach this level of reading development by fourth-grade. This is a time when classroom instruction transitions from learning to read to reading to learn.

Dr. Reid Lyon, formerly from the National Institute for Child Health and Human Development, wrote in 2002, "Specifically, in our NICHD-supported longitudinal studies, we have learned that school failure has devastating consequences with respect to self-esteem, social development, and opportunities for advanced education and meaningful employment. Nowhere are these consequences more apparent than when children fail to learn to read."

Children struggling to read in fourth-grade are greatly disadvantaged in comparison to their literate peers. The American Federation of Teachers, in their publication, "Reading: The Cornerstone of Learning," reports, "For every child, reading is truly the gateway to knowledge. In fact, teaching children to read is probably the single most important task of our elementary schools."

Driven to fulfill this need, StudyDog brought together innovative internet development, creative characters, stories and instruction, and solid, research-proven reading curriculum. The new generation of online instruction focuses on customizing instruction for each child, capturing the child's interest, and teaching the reading skills the child needs to succeed. Parents are provided this expert system that allows them to support their children while StudyDog teaches the children to read.

StudyDog has captured the interest and curiosity children have for the internet in its innovative use of an on-demand, instructional model. Within this model, StudyDog is able to deliver a very rich, multi-media, experience specifically designed for every child at anytime and to any internet connected computer. StudyDog is in the forefront applying an on-demand model to educational online learning. Driving the model, StudyDog has developed a learning management system for testing children's reading development, adapting the curriculum to each child's needs, tracking and redirecting each child's reading development, reporting progress to parents and teachers in real time and managing parents' and teachers' accounts. StudyDog does the heavy lifting, allowing parents to encourage and support their children and teachers to leverage their instructional time.

Building on the capacity of our on-demand model, StudyDog designed characters, stories, and instruction to capture children's attention. StudyDog, the character, is a companion for children as they move through the lessons. A quest like story enwraps the lessons, so the children see continuity that keeps them interested in what is coming next. High quality graphics enrich the environment for the lessons. Voice and music provide further interest to the children's experiences.

Driving the StudyDog lessons is a solid, research-proven early reading curriculum. Specifically modeled from the National Reading Panel's (2000) findings, which are at the heart of No Child Left Behind and Reading First, the StudyDog curriculum focuses on developing reading skills related to:

- phonemic awareness -- understanding that language is made from distinct sounds
- phonics -- associating language sounds to specific letters
- reading fluency -- learning to automatically read with rhythm and flow
- vocabulary --expanding an understanding and recognition of words
- comprehension -- understanding and using what is read

The StudyDog curriculum is consistent with the states' early-childhood reading standards and reflects the early instruction endorsed by educational researchers (Drs. Roland Good, University of Oregon; Sally Shaywitz, Yale University; and Catherine Snow, Harvard University, for example.

Instruction, presented in the 15 minute lessons, includes explicit teaching of the specific reading skills, demonstration of the skills and guided practice for the

children to master the skills. Lessons are lengthened when needed to revisit specific lesson activities and reinforce children's learning.

Because of the design of StudyDog the lessons are available to children at any time and from any internet connect computer at www.studydog.com and through our partners, including America Online (Ready, Set, Read), and the National Center for Family Literacy (primarily serving low-income families).

Among the children who have completed StudyDog lessons, 90 percent have shown a full years growth in reading skills. Through scientific trials, we have shown that StudyDog is accountable for two-thirds of the reading development gains children show in comparison to randomly assigned control children. Additionally, StudyDog has been reviewed and approved for Title 1 Supplemental Educational Service in Oregon and California.

3. Benefits

StudyDog has proven to be very effective in helping young children learn to read. It is particularly capable of capturing the attention of children who are reluctant to learn to read and encouraging their reading success.

Daliah Lundquist of Vancouver, WA, writes us, "We have tried everything with Ryan, so I was at first skeptical as to how much of an affect it would have. Ryan has a very difficult time with auditory learning. What pleased me most was his attitude towards StudyDog. He has become confident and most importantly he wants to learn. *What used to be a battle has turned into a pleasure.* Working with StudyDog has far exceeded my expectations."

With StudyDog, children take a first big step toward reading and school success. For most children, learning to read is a struggle and for some, a mighty struggle. In a classroom, early attempts to read often lead to embarrassment, failure, and reluctance to learn to read. We have talked with parents and teachers of reluctant readers. They are often amazed that their children like to *play* with StudyDog and that they often overcome their reluctance. When we first met Resa Bash, Owensboro, KY, she told us,

"Tyler entered 1st grade unable to read any sight words at all and only basic cvc type words. He is in the Reading Recovery program at school and has made progress, however he is still behind and I am very concerned. Immaturity is a factor, too. Whenever I have tried to work with him, he cries and shuts down at the first mistake he makes. I'm desperate to try something that will help him.

When he got home from school today, he said, "Come on Mommy, I want to play my new games"! He was sooo excited!"

Recently Resa told us, "Tyler's reading has absolutely taken off!!! All of the sudden he's reading everything! Thank you for your help."

In addition, parents love the way StudyDog provides reading instruction to their children, without the usual hassles for the parent. "First of all, thank you so

much for your wonderful reading program. Our son, who was taught very little in kindergarten, has taught himself to read with StudyDog. He loves it, and begs to get on the computer to do more. At last the goal of truly fun and educational software is being realized. I've seen very few educational software products that were so engaging and effective.” Scott Williams, Penfield, NY

StudyDog has proven effective for teachers, leveraging their time and supplementing their reading instruction in class and after school. Brenda Coats, Reading Specialist at Dry Hollow Elementary School in Oregon, reports that, “All of our kindergarten and struggling first and second-grade students use StudyDog, including our English language learners. In Kindergarten, the students start StudyDog after they gain oral language competency necessary to begin learning to read.” In interviews with the children, we found that they like this different way of learning reading skills, giving them a break from classroom worksheets and group reading tasks.

Neighborhood Houses use StudyDog in their after-school program. Reading development is extremely low for the children served by the centers. In fourteen weeks, 91 percent of the children showed a full year of reading skill development, a significant level of development in comparison to a randomly selected control sample. Parents and children loved StudyDog. Wanda Brownridge reports that “Parents wish StudyDog was available for their older students at our centers, also.”

The benefits provided by StudyDog have helped children, parents and teachers address the difficult problems of young literacy that are critical to academic success and life fulfillment. Our efforts are growing as more and more parents and teachers use StudyDog with their children. We are encouraged by the growth of our services and impact we are having on children’s lives.

4. The Importance of Technology

Addressing reading needs on a national scale is one of the thorniest problems facing educational improvement. Through federal efforts, elementary schools and classrooms are beginning to focus more on children’s early reading development. Progress is slowly being made, but much more needs to be accomplished for every child to have the benefits of reading literacy. StudyDog’s technology design, using an on-demand model, allows families and classrooms virtually unlimited access to the StudyDog lessons. StudyDog, with its technology design, engaging creativity, and solid curriculum, is capable of addressing the reading needs of individual, young children on a national scale. StudyDog is highly scalable because of its design and use of information technology.

5. Originality

The StudyDog Expert System is the first to incorporate reading assessments, validated and correctly designed and scoped curriculum, the ability to keep the child engaged, and the technology to manage, measure and report reading progress.

Patent-pending technology enables StudyDog to uniquely customize a reading course for each child, deliver scientifically developed curriculum based on a child's assessed needs and performance, and keep a child engaged while learning to read. StudyDog analyzes each child's reading needs and performance to continually determine and deliver the specific instructional sequence needed by that child.

The uniqueness and advantage of StudyDog is centered on leveraging technology and validated curriculum and on the changing needs of the market. Since most parents are very busy and not experts in reading curriculum and instruction, they want a reading solution that teaches their child to read and yet keeps them informed of their child's performance, unlike the traditional way where a reading program presents the curriculum and it is up to the parent to teach their children and to keep them engaged.

StudyDog's unique application of an on-demand model, the focus on reaching literally millions of parents and their children with an affordable and effective product that children love is our greatest accomplishment. These qualities are what sets StudyDog apart from other, more traditional reading services.

6. Difficulty

At its inception, StudyDog set a demanding and difficult task, to build a software system to teach children reading skills like an expert reading tutor. The traditional reading models were either a fun, interactive game that lacked sufficient curriculum and teaching methodologies to be instructionally effective or rigorous, uninspiring curriculum that failed to engage a child again and again, hence a tutor was required. Also, we wanted to provide parents and teachers such tutoring expertise they could afford and that would greatly enhance and leverage their limited time. In short, our goal was fairly radical in that we wanted StudyDog to emulate a human tutor. The benefit to the parent being their child is given expert instruction and StudyDog does the teaching and the benefit to the teacher, who already is the expert, is the leverage they realize for placing selected students with StudyDog.

This defined the product development efforts for our curriculum, creative design, and information technology staffs. Bringing these three groups together allowed StudyDog to capture children's attention, customize and manage their learning, and teach essential reading skills.

We approached our development efforts by describing the critical attributes of a human reading tutor. A tutor gains knowledge about the children they serve and selects curriculum to fit the children's needs. They select appropriate instructional methods to teach sound reading curriculum. They adapt to the children's changing needs as they develop reading competency to motivate and challenge the children. Finally, they measure and report the children's performance to parents and teachers.

Our development efforts had to address each of these attributes of a reading tutor. We developed online interactive assessments for young children in order to identify their reading needs. We used that information to customize a course

of study for each child. The responses from each lesson activity are monitored and used to repeat lessons or redirect children to additional skill lessons they need. This flexibility allows StudyDog to address student's needs and to keep challenging and motivating them advance in their development.

Capturing lesson data from children, allows StudyDog to provide real-time, online reports to parents or teachers. These reports keeps parents informed about their child's progress and motivates parents to encourage their child's reading success.