Research Foundations and Design:

TimeWarp® Plus Reading Intervention System

Voyager Sopris Learning
Research and Development

VOYAGER SOPRIS LEARNING®

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TimeWarp Plus Reading Intervention System

Program Overview

TimeWarp® Plus is a comprehensive summer reading intervention program specifically designed to prevent summer learning loss. Developed by a team of reading specialists to accelerate learning for students who have fallen behind, the series is crafted to immerse students in exciting reading adventures, while addressing the critical needs of struggling readers in grades K–9. Grounded in research on summer reading loss validated for over a decade, reading instruction in *TimeWarp Plus* is supported by additional language arts strands: listening and speaking, spelling, and writing, interwoven in the daily adventures.

The *TimeWarp Plus* model includes 3–4 hours of academic learning per day for 3–6 weeks, totaling up to 80 hours of instruction. In addition to summer school, this reading intervention series is flexible enough to serve as an effective model for intersession classes in year-round schools.

Students in *TimeWarp Plus* participate in theme-based adventures that take students back in time and then return them to the present day, culminating in a celebration. While actively engaging in leadership roles and collaborative learning through participation as "Team Leaders" and "Pathfinders," students read a variety of texts and learning resources daily for information and pleasure. Active learning experiences in whole- and small-group settings effect improvement in key reading and language skills students need to become more competent and confident readers within a few short weeks.

Students begin their day with instructional-level text to practice reading fluency. They practice improving their reading rate or pace, reading accuracy, and prosody (reading with expression). Kindergarten teachers begin the day sharing read-alouds to build oral vocabulary and listening comprehension. Reading instruction continues with teacher-led lessons in word study, including sight words, spelling, passage reading and strategies for building vocabulary and comprehension, as well as fluency practice.

Activators draw students into the adventure and provide opportunities to apply new skills to a theme-based adventure. Oral language is developed as students' prior knowledge is activated through the instructional focus. Students participate in the reading process and develop skills and strategies used by successful readers. Students engage in paired reading, choral reading, and modeled think-alouds.

Based on reading levels determined by their Vital Indicators of Progress® (VIP) assessment, students are grouped into three learning teams, rotating through two learning stations and one teacher station daily. At each learning station, a student team leader facilitates as students work independently in small-group activities. The teaching station provides the opportunity for teachers to work with small groups of students at two levels of difficulty: Challenge Level A or Challenge Level B. Challenge lessons are composed of four segments:

- Fluency
- Instructional reading
- Phonological awareness (K–3) or decoding and word recognition (4–9)
- Alphabetic principle (K–3) or word analysis and spelling (4–9)

Response and practice activities give students the opportunity to reflect on what they have read as they express themselves creatively in whole-group, small-group and individual activities. Students write to specific prompts and for a variety of audiences and collaborate using the steps of process writing: prewriting, drafting, revising, editing, and publishing. They also create theme related projects to demonstrate real-world connections to reading.

Assessment and Progress Monitoring

Pre- and post-program benchmark results of student progress are easily monitored through VPORT™, Voyager's web-based data management and reporting system, which provides summary reports of gains at the student, classroom, and district levels. Teachers and administrators have immediate access to information regarding each student's level of reading progress using the web-based reporting tools, while benchmark pre- and post-program assessments provide valuable data so educators can meet accountability requirements.

TimeWarp Plus features Reading Connected Text assessment using VIP, which is completely equivalent to Dynamic Indicators of Basic Early Literacy Skills (DIBELS™).

Teacher Training/Professional Development/Implementation Support

Voyager provides professional development designed to build instructional capacity at the district and campus level. Using a proven training format, district personnel are guided in specific steps designed to lead teachers through a learning and preparation process. This professional development experience is supported by the latest research on ways to prepare educators to implement effective reading instruction with ease and fidelity. These steps focus on:

- Research-based reading intervention strategies
- Demonstrations to model critical reading strategies
- Opportunities to practice using the curriculum and methodologies

On-site training is available for summer intervention. Teachers implementing *TimeWarp Plus* receive training in administering VIP assessment measures and strategies for fluency and targeted word study. Web-based update training is available to support teachers already familiar with the *TimeWarp* curriculum. Small implementation sites may be provided a comprehensive Training and Implementation Kit in lieu of on-site training.

Educational Research Base

Reading is a complex process of converting printed symbols into language and meaning. Students do not learn to read naturally, and most students benefit from explicit instruction that is carefully sequenced and paced. However, even with effective instruction, some students do not benefit adequately from their core reading program and require supplemental instruction. Without well-designed supplemental instruction, these students will struggle with reading and not be able to realize total mastery of the reading process. However, an extensive knowledge base now exists to guide effective instructional practice and prevent most students from experiencing reading failure. Overall, the converging research provides a blueprint of the five critical components of early reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension (National Reading Panel, 2000). Explicit, systematic instruction in each of these components is most effective for ensuring that the highest percentage of students succeed in the reading process.

TimeWarp Plus provides direct, systematic instruction in each of the essential reading components. Lessons are based on the latest scientific knowledge about effective reading instruction and are carefully designed to effectively and efficiently address each of the strategies and skills necessary for students struggling with reading to learn to read fluently with comprehension.

TimeWarp Plus is designed to capitalize on the most current and convincing scientifically based research in reading including the most recent and compelling research on phonemic awareness. Students are taught the critical elements of segmenting and blending sounds orally and then quickly master mapping them to print. These critical phonemic awareness skills are well integrated within each lesson so that students learn to segment and blend the sounds of language, map them to print, and have ample time to practice and demonstrate their learning. To make the greatest gains in reading, students must learn to blend and segment individual sounds in words. Student gains in reading and spelling are strongest when print is integrated with phonemic awareness instruction (Hatcher, Hulme, & Ellis, 1994).

Phonics instruction is the systematic use of sound-symbol relationships to teach the reading and writing of words. The goal of phonics instruction is to teach students the relationships between spoken sounds and printed letters for use in decoding and spelling words. Systematic and explicit instruction in phonics is the most effective way to ensure appropriate reading growth in students (National Reading Panel, 2000). The direct teaching of a planned sequence of sound-symbol relationships and their use in reading and spelling words improves students' word recognition, spelling, and reading comprehension. To be most effective, this instruction should begin early.

In addition to reading words, students in *TimeWarp Plus* apply their phonics skills to spelling and writing. The frequent application of phonics to both reading and the reciprocal skill of spelling deepens the knowledge students have about the sound-symbol system.

Fluency is the ability to accurately and quickly read text. This ability is preceded by facility with early reading skills (e.g., naming letters and sounds, reading words). Fluent reading allows readers to focus on comprehending and gaining meaning from text. Therefore, fluency is directly related to reading comprehension.

Effective fluency instruction should provide specific time for practicing reading and rereading text accurately, quickly, and with expression. Before students have the necessary skills to read connected text, fluency instruction should include the building blocks of reading, including naming letters or sounds

and reading words automatically. Once students can read connected text, repeated reading with feedback is an effective practice for improving fluency and reading achievement (Chard, Vaughn, & Tyler, 2002; Homan, Klesius, & Hite, 1993). In fact, feedback from peers or teachers while reading is an essential component of reading fluency instruction. Voyager fluency lessons are specifically designed to incorporate all of the research findings for effective fluency instruction.

Vocabulary refers to the words a person understands and uses in listening, speaking, reading, and writing. Vocabulary is directly related to reading comprehension as students try to make meaning of the words in text. Students learn word meanings through direct and indirect experiences with oral and printed language (National Reading Panel, 2000). First, it is imperative students have many opportunities to engage in discussions of new experiences and learn new words to build on their previous knowledge. One effective avenue for building students' oral vocabulary is through teacher read-alouds (Robbins & Ehri, 1994).

Teachers read to students and engage them in meaningful discussions revolving around new words and concepts while connecting the new knowledge with students' previous experiences. Instruction of specific word meanings is also necessary to increase student exposure to novel words (Brett, Rothlein, & Hurley, 1996). Direct vocabulary instruction is most effective when words are selected and incorporated in text based on their usefulness in language and importance to comprehension (Beck, McKeown, & Kucan, 2002). Repeated exposure to new vocabulary in a variety of contexts is also vital to ensuring significant student reading gains.

Voyager addresses vocabulary instruction both directly and indirectly as the research suggests. A carefully planned sequence of word introduction is skillfully meshed with read-alouds, student passage reading, comprehension activities, and text discussions. This design allows repeated exposure to new vocabulary in a variety of contexts using oral and written language.

Comprehension is the ability to understand and gain meaning from language. Listening comprehension refers to gaining understanding through spoken language, while reading comprehension refers to gaining understanding through written language. Comprehension abilities are the direct result of active reading in which readers think about their reading, making connections and inferences to understand text.

Comprehension can be improved by teaching specific comprehension strategies. This includes teaching students to monitor their comprehension, organize and retell information presented, recognize story structure, generate questions about the text, predict outcomes in the text, and confirm or revise predictions (National Reading Panel, 2000; Pressley & Wharton-McDonald, 1997; Rosenshine, Meister, & Chapman, 1996).

The techniques of summarizing and generating main ideas are effective strategies to teach students how to improve comprehension. Comprehension instruction should begin with listening comprehension when students first begin reading instruction. High-level comprehension strategies such as making inferences can be learned through direct teaching and practice with teacher-read stories (Grant, Elias, & Broerse, 1989). Early listening comprehension instruction makes the transition to reading comprehension more efficient. Comprehension instruction continues with reading as students begin reading text.

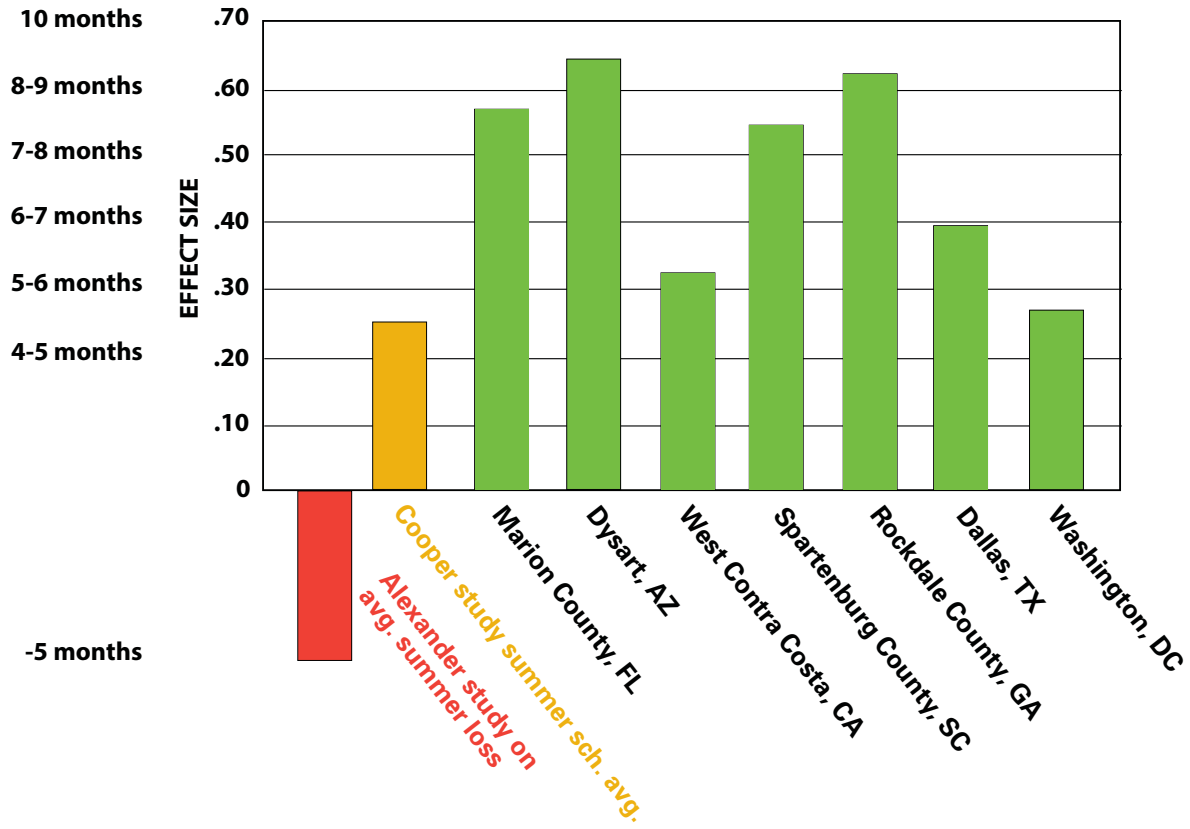
Voyager applies the most effective research-based comprehension instruction at all grade levels. By teaching critical strategies for understanding text, teachers give struggling readers the tools they need to read grade-level texts. Voyager focuses on the skills most struggling readers lack, teaching them with intensity and deliberation and providing ample practice.

Evidence of Effectiveness

The effectiveness of the *TimeWarp Plus* K–9 Reading Intervention Series has been extensively tested and evaluated. More than 45,000 students have been pre- and post-tested using a variety of measures, including norm-referenced standardized tests. The following is a sample of the data collected through school districts, university researchers, and national studies. In a national study, Voyager students sampled from districts in a seven-state area were pre- and post-tested using the Stanford Diagnostic Reading Test-IV (SDRT-IV).

Average summer school effect size for students in Voyager programs is .42, nearly double the average effect. Voyager students made gains of 5–9 months during the 80-hour, 4-week program. A similar study of more than 14,000 students across nine districts showed equally dramatic results. In some districts, the effect size for students in the Voyager program was nearly triple the average effect (see Charts 1 and 2).

CHART 1. NATIONAL RESEARCH STUDY OF VOYAGER SUMMER READING INTERVENTION

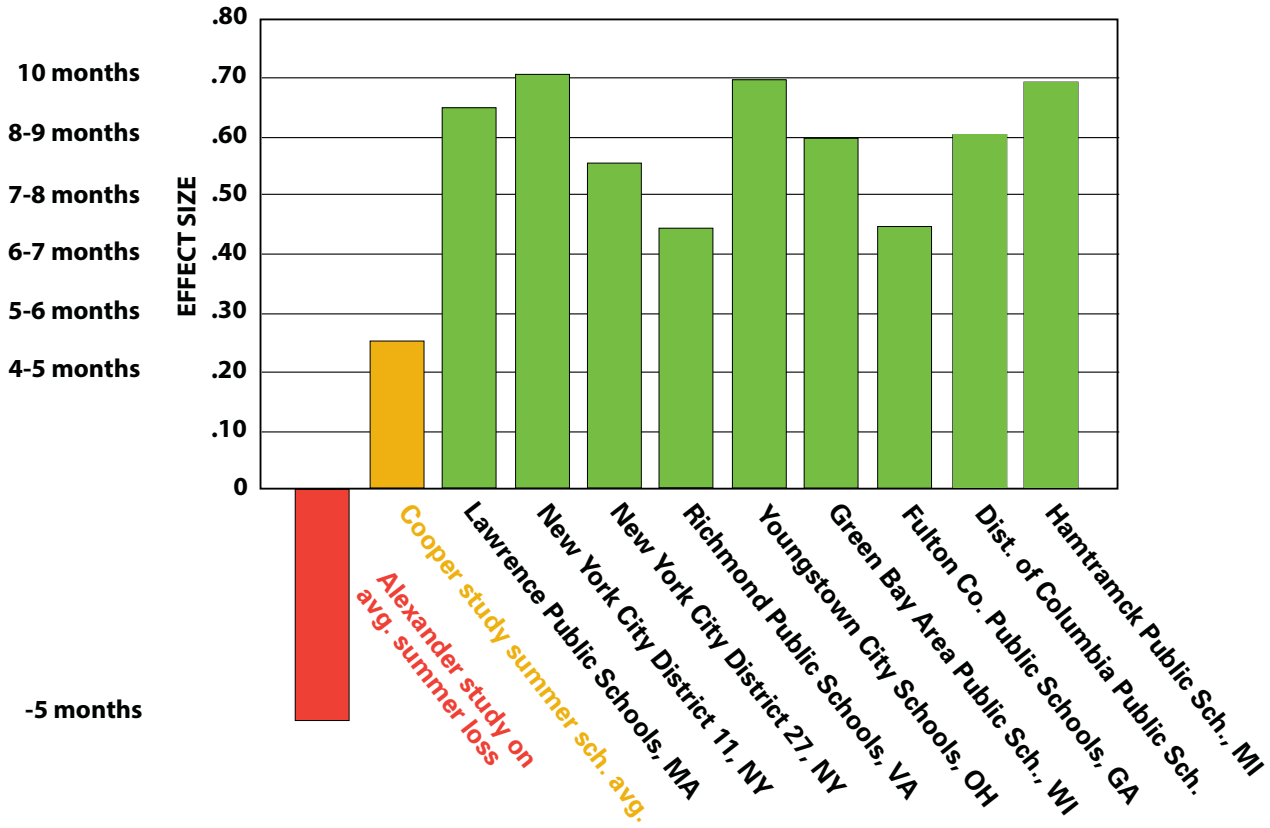


The Alexander, et al., study shows that economically disadvantaged children consistently lose 1–5 months of academic learning each summer.

Cooper, et al., studied evaluations of 100 effective summer school programs over a 20-year time span and found they achieved a .26 average effect size.

CHART 2. NINE-DISTRICT EVALUATION OF VOYAGER SUMMER READING INTERVENTION

14,047 Student Sample



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