

Fluency Training: Is it Effective?

by
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Abstract:

In this paper the authors examine a partnership between Evans Elementary School and Adams State College Teacher Education Department. This article discusses attempts to provide fluency instruction for children through intensive, individualized intervention. The descriptive analysis suggests that the intervention was successful in its first year.

About the Authors:

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Introduction

During the Fall 2003 term Adams State College and Evans Elementary School, in Alamosa, Colorado, initiated an experimental learning “partnership.” Adams State College students, enrolled in a senior level literacy course, “Diagnosis and Remediation of Reading Difficulties,” and 4th/5th grade students from Evans Elementary School were the primary participants involved in the partnership, along with Adams State College professor, Dr. Randall K. Engle, and Evans teachers, Stephanie Hensley and Kelly Ozawa.

Although the partnership was originally designed to simply provide enhanced learning opportunities for ASC students during their Senior Block Practicum experience, it soon blossomed into a full-fledged teaching and learning partnership, with responsibility for instruction and supervision shared among Engle, Hensley, and Ozawa. During the two hour daily literacy block Adams State College students were involved in providing intensive, personalized instruction to Evans students which centered on reading “fluency.” Fluency is one of the five essential components of reading (phonemic awareness, phonics, fluency, vocabulary, and comprehension) identified in the Colorado Basic Literacy Act (Colorado Department of Education, 1998).

Some researchers (e.g., Pikulski & Chard, 2005; Chall, 1996) make a further distinction, adding that fluency is not limited solely to expressive oral reading. Pikulski and Chard (2005) note that fluency is also a factor in silent reading. Chall (1996) concurs, and refers to the dual process of silent and oral reading as “confirmation” and “fluency.” In the confirmation stage readers confirm what is already known, contributing to reading “automaticity.” Automaticity is the ability to identify words, not only

accurately, but rapidly and easily as well. Readers who possess this ability are able to focus attention on decoding difficulties, when needed, but allocate the majority of mental resources to comprehending the text. With few exceptions researchers agree that fluency refers to “rapid, efficient, accurate word recognition skills, permitting a reader to make meaning of the text he/she is reading” (Ozawa & Doyle, 2005, p. 2). Traditionally fluency has involved the following three primary components: a) reading rate, b) word recognition, and c) prosody. Prosody involves pitch, intonation, reading with expression, stress/emphasis, rate, and rhythm. Fluent readers read rapidly, are able to quickly focus attention, and employ standard prosodic conventions (Kuhn & Stahl, 2004).

A number of strategies and interventions for promoting reading fluency have been identified in the literature. They include the following: a) modeling reading, b) text chunking, c) repeated reading, d) wide independent reading, e) coached/assisted reading, and f) word practice (Ozawa & Doyle, 2005).

According to Oakley (2003), modeling of text directs students to attend to features of fluent reading, such as volume, pitch, phrasing, rate and emphasis. Modeling is a well tested technique that teachers have employed for many years (Bergman, 1992), and also contributes to the development of student metacognitive awareness.

Text chunking has also been shown to assist in the development of more fluent readers (Tompkins, 2003). Students who have been read to regularly and had many reading experiences are often able to chunk text effectively. However, struggling readers seldom have developed this ability. Teachers sometimes need to help non-proficient readers learn to chunk text that can be practiced for appropriate phrasing and intonation. Variations on chunking include choral reading and unison reading, in which the teacher

and student read text together (Reutzel & Cooter, 2000). This technique has been shown to be effective with students whose first language is not English.

Another technique for enhancing fluency is the practice of repeated readings (Kuhn & Stahl, 2004, Oakley, 2003, & Pikulski & Chard, 2005). In order to maximize students' ability to read with expression and prosody, it is recommended that passages should be employed that are at the students' "easy," or "independent" level. Oakley (2003) found that repeated readings improved students' ability to read practiced passages, but also transferred to unread passages. Fourth graders are expected to read at least one hundred words per minute with grade level passages. The Colorado Basic Literacy Act mandates that repeated reading be employed with low-proficiency readers and that results be entered on a graph to display student growth.

For students who are already reading at or above grade level, the use of wide independent reading has also been shown to increase fluency. This appears to be true for low proficiency readers as well. Pikulski and Chard (2005) suggests that all students can benefit from wide reading, particularly when struggling readers receive assistance with book choices, strategies for staying on task, and comprehension.

Coached, or assisted reading has also been shown to help build fluency, particularly in English Language Learners (Pikulski & Chard, 2005). The immediate feedback provided during assisted reading helps student focus on fluency and accuracy.

Finally, the use of direct vocabulary instruction appears to be beneficial in building reader fluency (Stanovich, 1980). When troublesome vocabulary is identified and pre-taught students are able to focus attention on comprehension, rather than allocating resources toward simple decoding of words.

Problem/Rationale

With increasing pressure from state and federal mandates concerning student progress (e.g., CSAP, NCLB, AYP monitoring) schools are compelled to continually reexamine their practice in order to identify techniques and strategies that contribute to continuous growth in student achievement.

According to state records, during the 2003-2004 academic year the Alamosa School District failed to meet federally mandated progress guidelines for the second year in a row. Adequate Yearly Progress, or AYP, as defined by the No Child Left Behind Act, mandates that schools must show defined improvement in several student categories. If one category fails to demonstrate progress, the school and district fail to achieve AYP. Alamosa Public School records indicate that Evans Elementary School failed to show adequate yearly progress in reading for one specific group of students, students with disabilities (Valley Courier, Online, 2005).

In order to address and respond to the “low performing” status of the district, each school developed a plan for closely monitoring and working with students identified as non- or partially proficient on CSAPs from the previous year. In 2005, Evans Elementary initiated a comprehensive “intervention” program. An “Intervention Specialist,” and was given the tasks of identification, diagnosis, and remediation of the identified population (low scoring on CSAP) of students. With guidance from district personnel, as well as the building administrator, a “fluency” intervention program was developed. Numerous studies have suggested that students who read fluently score higher on comprehension measures than students who read at slower, more labored rates (Samuels, 1982; Perfetti, 1985; Stanovich, 1980). It was this belief that guided the effort to provide

“fluency” intervention to effect comprehension in struggling readers.

Data Analysis

Pre-Intervention Data

Initial identification of low performing students was accomplished by examination of both CSAP results from the previous year, and STAR Reading scores. Once identified, students were screened for fluency and comprehension, and Individual Literacy Plans were reviewed.

Initial screening resulted in the identification of 107 4th and 5th grade students. Of these students 45 (42%) were on Individual Literacy Plans, or ILPs, 13 (12%) were on IEPs, and 12 (12%) were identified as English Language Learners, or ELLs.

Examination of baseline data indicated that students identified for intervention in the fourth grade were determined to be an average of 1.3 years below grade level in reading fluency. Students in the fifth grade identified for intervention were determined to be an average of 1.9 years below grade level in reading fluency. Of course, it should be noted that the range of reading fluency scores was, expectedly, quite wide. Scores ranged from 4 years below grade level to 3 months below grade level, across the two grades (fourth and fifth).

Post-Intervention Data

Post-Intervention, performed after 9 months of systematic reading fluency intervention, consisted of analysis of student CSAP scores for the 2004-2005 academic year. Once CSAP scores were returned to the district from the National Educational Testing Center, student gains were calculated. This was accomplished by entering data into an Excel spreadsheet. To maintain anonymity, each student receiving intervention

received a randomly coded assignment on the spreadsheet, along with the pre and post assessment data. An additional column was included for the sub-group identification (e.g., ILP, IEP, and ELL). Examination of data enabled the intervention team to identify individuals, as well as sub-groups that showed demonstrable growth on reading fluency measures.

Interventions

After initial identification and pre-assessment was completed (at the beginning of the 2004-2005 academic year), students received systematic reading fluency intervention. This intervention was provided by participating Evans classroom teachers, as well as Senior Block Practicum students from the ASC course.

Each identified Evans student received reading fluency intervention on a regular and systematic basis. The Evans Elementary Intervention Specialist created a comprehensive file on each child, updated on a daily basis by either classroom teachers or practicum students (whichever performed the fluency intervention). Fluency progress was systematically monitored and recorded in order to quickly determine the level of student attainment.

As discussed earlier, a number of intervention strategies were employed in the course of working with students. They included a) modeling reading by teacher or practicum student, b) text chunking, c) repeated timed readings, d) promotion of wide independent reading, e) coached/assisted reading, and f) word/vocabulary practice.

Students received intervention 2-3 times/week, at which time they worked in a one-on-one setting. Sessions typically lasted for 30 minutes. During the session various strategies were introduced, depending on the perceived need, determined in the previous

session. Each Evans student, at some point in the session, read a leveled passage and was timed for one minute. When students successfully attained a score of 100 words/minute without miscues, they progressed to the next level. Students were also allowed to graph their progress on a fluency growth chart that was kept in the child's folder.

Results

Descriptive analysis of data provides evidence that intervention had a positive impact on student growth in reading fluency. Of the 107 students participating in the intervention 78, or 73% showed conspicuous gains in reading fluency. Although all 78 did not necessarily progress to the level of "Proficient," as indicated on CSAP reporting, it is estimated that all 78 moved either from an "unsatisfactory" to a "partially proficient," or from a "partially proficient" to a "proficient" status. While in some cases this merely represents the student growth that one might expect from an academic year, in other cases students demonstrated approximately two year's growth in the 2004-2005 academic year.

Of the above mentioned gains, 31 students, or 29% of students receiving intervention progressed to the status of "proficient," as determined by CSAP reporting. Of these 31, 11 students had been placed on an ILP (Individual Literacy Plan) in the last 2 years. One student had been identified as an ELL (English Language Learner). None of the students identified with IEPs (Individual Education Plans) were represented in this group.

Discussion

Based on the results of descriptive data analysis it appears that systematic, individual reading fluency intervention may have contributed positively to increases in

student fluency levels. While baseline measures were established with a less than reliable instrument (STAR Reading), it seems highly unlikely that student gains of this magnitude (29% showed gains of approximately two grade levels) could be attributed to chance alone. However, it should be noted that the techniques and strategies employed in the individual fluency intervention have all been documented in the literature on fluency and have been deemed to be “research-based.” This fact contributes further support to the notion that, in fact, the individual fluency intervention was a contributing factor in the documented student gains in the Evans students identified for intensive interventions.

Based on the analysis, it also appears that individual fluency intervention may be most effective with children who are experiencing reading difficulties, but not to the extent that they may qualify for special education services. Of the 12 students on IEPs (Individual Education Plans) who received individual fluency intervention in this study, none appear to have progressed significantly beyond their pre-assessment scores. It is interesting to note that in each case the students on IEPs also had significantly lower pre-assessment grade level (2 -3 years below grade level) determinations than students on ILPs.

Although the data related to English Language Learners is limited (only 12 ELL students participated) some gains were evident. Of these twelve students, seven (58%) did show gains of approximately 2 grade levels or more. Only one of the ELL students receiving fluency intervention scored “proficient” on the 2004-2005 CSAPs. However, 6 other ELL students receiving fluency intervention progressed to the status of “partially proficient.”

Finally, the work of Evans Elementary teachers in identifying and providing

intervention for students experiencing reading difficulties has greatly benefited Adams State College pre-service students. Students from two ASC senior level courses have gotten experience working with low-proficiency readers, designing strategies for remediation, and gained valuable professional experiences and insights, by working closely with concerned, dedicated in-service teachers who are collectively working toward systematic, research-based school improvement.

The Future

Based on these preliminary findings the Evans Elementary fluency intervention program will continue into the 2005-2006 academic year. Under the leadership of new Principal Dan Barney several modifications will be integrated into the program, in order to increase its effectiveness. They include the following:

- 1) The adoption of the DIBELS (Dynamic Basics of Early Literacy Skills) within the district. DIBELS provides a more valid and reliable measure of student reading skills than the STAR Reading program, employed during the last academic year. Early work with DIBELS scores indicates a close correlation with CSAP scores, providing an effective tool in assisting teachers in the design of data-driven instruction.
- 2) Intervention will be expanded beyond “fluency.” Other factors identified in CBLA (Colorado Basic Literacy Act) will be integrated into systematic, individual intervention. These include vocabulary study, as well as comprehension.
- 3) A more thorough data collection regimen will be established in order to conduct an ongoing, formative review of the program, enabling participants to quickly

- identify and implement new strategies and assess their effectiveness.
- 4) In addition to working with Evans students receiving intervention, Adams State College pre-service students will also share results of intervention with classroom teachers on a regular basis. This will strengthen the relationship between Evans Elementary and Adams State College and open the door to further collaboration.

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