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DEVELOPING READING FLUENCY THROUGH A SYSTEMATIC PRACTICE PROCEDURE

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Research has shown fluency plays a vital role in learning. Precision Teaching, a method for measuring behavior and facilitating decision-making, has demonstrated it can benefit teachers interested in fostering fluency. Through the use of a systematic practice routine derived from Precision Training, teachers can apply a method that efficiently leads to fluent behavior. This article offers a general outline describing a systematic practice routine in the context of reading.

The concept of ''fluency'' has received attention as an important dimension of proficient reading. For example, a national panel of reading experts commissioned by the government systematically reviewed the reading literature and found reliable and valid research showing effective methods of teaching beginning reading (National Institute for Child Health and Human Development, 2000). The panel indicated that ''it is generally acknowledged that fluency is a critical component of skilled reading. Nevertheless, it is often neglected in classroom instruction'' (p. 3), After reviewing the literature for fluency used with both developmental and remedial instruction, Kuhn and Stahl (2003) also encouraged teachers to use fluency techniques in classrooms more often because of the positive benefits to reading.

The definition of fluency refers to a behavior performed with high degrees of accuracy and speed (Binder, 1996; Johnson & Layng, 1992).

Fluency can occur with any reading behavior. Take the example of "oral reading fluency," which Fuchs, Fuchs, Hosp, and Jenkins (2001) define as orally translating a text with "speed and accuracy." To achieve fluency in reading, a student generally engages in some type of practice. Practice methods used to promote fluent reading behavior have a diverse nature and can include flashcards, worksheets, and "round robin." Because reading encompasses a variety of behaviors (Carnine, Silbert, & Kameenui, 1997), teachers may find a general procedure for practice beneficial for classroom use. Precision Teaching (Lindsley, 1972, 1990, 1991, 1997), a method for measuring behavior and facilitating effective decision-making, can help plan for and monitor mastery activities leading to fluency. The following recommendations come from applications of Precision Teaching (e.g., Binder, 1996; Haughton, 1972; Lindsley, 1997; Maloney, 1998) and suggest how a systematic practice procedure can benefit students with and without disabilities during reading instruction in an inclusive classroom.

Allocate time during the reading period for practice activities. If a teacher allocates sixty minutes each day for reading instruction, anywhere from five to twenty minutes of the daily reading session could serve as "practice time." By designating time for practice, teachers utilize a powerful variable in reading achievement—"engaged time." Engaged time refers to the amount of time students actually engage in a particular activity (Shanker & Ekwall, 1998). Because reading researchers note that engaged time demonstrates the highest correlation with reading achievement (Carnine, Silbert, & Kameenui, 1997), allocating and using time for practice activities helps all students with their targeted reading skills. In an inclusive setting, students may practice different reading skills. Still, all students participate in practice and can make progress towards their individual goals.

Pinpoint the behavior selected for practice. Pinpointing a behavior means describing the selected skill by using an action–object pair (McGreevy, 1983). "Jack orally reads second grade level books" uses an action–object pair to more precisely specify an observable behavior. "Blending regular consonant-vowel-consonant words in a list," "writing answers to written literal comprehension questions at the end of the passage," and "orally segmenting spoken words into sounds" all represent examples of pinpoints. Pinpointed behaviors spell out what the student will do and can also serve a part of a behavioral objective (Alberto & Troutman, 1998).

Select the range of behaviors in the practice set. When practicing a skill, a teacher should consider the range of items or behaviors

included in the practice set. Suppose a teacher plans on teaching letter sounds. American English has approximately forty distinct sounds (Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2002), and a teacher can provide instruction for letter sounds in a variety of ways. However, students do not have to wait until they learn all forty letter sounds before beginning practice. A teacher may construct a practice sheet that has ten letter sounds repeated in random order after students have acquired the selected letters and initiate practice. After the students meet their fluency goal, the teacher can construct another practice sheet that contains the next ten letter sounds, or combine the next ten letter sounds with the previous letter sounds to make a sheet of twenty. By selecting a range of behaviors for the practice set, teachers have a clear vision of what students will achieve once they meet their fluency goal.

Itemize steps involved in the practice routine. By listing specific steps the students will practice and explicitly defining teacher and student roles, a clear set of behaviors emerge, systematizing the practice steps into a routine. A systematic practice routine facilitates efficiency by decreasing transition time, increasing engaged time, and providing an acceptability measure for completing practice trials. An itemized routine can also undergo modification if data suggest a need for a change. Through planned procedures, a teacher lays the groundwork for good practice habits and productive daily routines (Tatton, 1997).

Select an optimal "counting time" for the practice routine. A counting time refers to the amount of time a student will practice the pinpointed behavior. "Repeated reading," an educational practice strategy for building reading fluency, requires a student to read and reread a passage until meeting a criterion level (Dahl, 1979; Samuels, 1979). Typically, reading trials have one-minute counting times. By using the same counting time each day, students practice for consistent intervals, which aids learning (Binder, 1996; Graf & Lindsley, 2002). Additionally, a teacher may use a shorter counting time as an intervention for attaining fluency. For example, a student struggling with a repeated reading passage for one minute may try a thirty second counting time. The reduced counting time means the student practices for a shorter interval and has less practice material. Reduced counting times can also build "endurance" or the ability to perform a behavior at a given rate over a period of time (Binder, 1996; Binder, Haughton, & Van Eyk, 1990; McDowell & Keenan, 2001).

Select a "fluency aim" for the pinpointed behavior. A fluency aim refers to a performance level indicative of fluency (Kubina &

Morrison, 2000). Precision Teachers have found behaviors fall within a fluency aim, often expressed as a range of frequencies (e.g., oral reading fluency aim: 150–250 words correct per minute with one or two errors), and associate them with critical learning outcomes (Binder, 1996). The associated critical learning outcomes include long-term retention, endurance, and application or the ability to apply component or element behaviors to composite or compound behaviors. For instance, reaching the fluency aim with the component behavior of sound–symbol correspondences and sight word reading applies to the composite behavior of orally reading passages (Mercer, Campbell, Miller, Mercer, & Lane, 2000). Koorland, Keel, and Ueberhorst (1990) suggest a variety of ways teachers can set fluency aims. Teachers can sample fluent peers, use an "adult/child proportional formula," or consult data gathered from large-scale application projects (e.g., Beck & Clement, 1991). Teachers may also review research from curriculum-based measurement (CBM), which offers reliable and valid measures of reading fluency (Marston, 1989). Important early literacy skills have undergone testing, which also yields fluency aims (Kaminski & Good, 1996, 1998).

Combine practice steps with the selected counting time and initiate practice. After itemizing the practice routine (Step 4) and determining the counting time (Step 5) a teacher has a blueprint for the practice trial. The teacher begins the practice routine by saying "please begin." The student practices the pinpointed behavior until the counting time ends, as indicated by the teacher saying "please stop" or through the signal of a counting device (e.g., a timer). Several practice trials can occur each day so students have an immediate opportunity to practice the skill again. If the student receives corrective feedback (e.g., Step 8), he/she can repeat their responses and self-correct, thereby learning the correct response rapidly (Lindsley, 1996).

Reinforce correct performance and provide feedback for incorrect performance after the practice session has ended. A student, paraprofessional, classroom volunteer, cross-age tutor, or teacher may practice with the student and become a "counter." The counter checks for correct and incorrect responses. If the student practices reading Dolch list sight words (Dolch, 1955), for example, the counter will have the same sheet and mark corrects and incorrects. After the practice trial ends, the student receives immediate feedback. The feedback may consist of praise for engaging in the practice trial, recognition of correct performances, beating the previous score, corrective observations, and/or additional encouragement. Miller, Hall, and Heward (1995) found students achieved the greatest degree of fluency, on-task behavior, and reported the highest levels of

enjoyment when engaging in multiple practice trials coupled with a correction condition. Lindsley (1995) has also suggested that timings of fluent behavior occasions a byproduct of fluency VM fun.

Graphically display the data on the Standard Celeration Chart (SCC). Experimenters and practitioners use graphs to aid the interpretation of data (Johnston & Pennypacker, 1993). Fuchs and Fuchs (1986) found that teachers who use graphic display with formative assessment strategies create significantly better outcomes for their students than those who do not. Because the Standard Celeration Chart has a standard scale, teachers make fewer misinterpretations based on graph variations and produce consistently more reliable interpretations of instructional procedures (West, Young, & Spooner, (1990). When students finish practicing and have scores recorded on a data sheet, they or a chart buddy will chart the data on a Standard Celeration Chart for both themselves and the teacher to review. Readers can inspect a more detailed description of the SCC from Graf and Lindsley (2002) and decision rules for daily progress and chart usage from Cancio and Maloney (1994).

Based on the charted data, make a decision whether to continue with the current practice routine or make a change. By looking at charted data and deciding whether to make a change or continue with the present routine, teachers engage in an analytical investigation of student learning. Each day, a student's daily performance data may show an improvement, a decline, or no change. If the teacher tries a new intervention, the SCC will show the results of the change. The Standard Celeration Chart has three functions:

1. **it shows a record of past performance and interventions**
2. **it provides a clear and standard view of present performance**
3. **it allows a straight line projection of the future course of the behavior (Graf & Lindsley, 2002; Lindsley, 1991).**

With general education classroom having 25 or more students but resource rooms having less, teachers must decide on a practical method for measuring behavior. Curriculum-based assessment and measurement provide systems for teacher to implement, record, and analyze reading performance data in different classroom situations (e.g., Idol, Nevin, & Paolucci-Whitcomb, 1999; Shinn, 1989; Shinn & Bamonto, 1998). Through the process of chart-based decision-making and the steps involved in the systematic practice procedure, teachers implement a responsive, sensitive, and orderly practice method that helps all students work towards their goal of achieving fluency.

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