

CHAPTER 5

Small-Group Academic Interventions

OVERVIEW

As stated in Chapter 1, there are usually three tiers of intervention within an RTI model. Tier 1 is the most important, but in our experience, Tier 2 will make or break your RTI model. The most effective small-group intervention in the world will not help a student learn how to read unless it is contextualized within effective reading instruction, but an effective Tier 2 model will greatly enhance the effectiveness of Tier 3. Thus, school personnel should focus their efforts on quality core instruction and classwide problems (see Chapter 3) before they begin small-group interventions within an RTI framework. However, they should also establish an effective Tier 2 model before implementing a problem-solving team within Tier 3.

On average, 20% of the student population requires additional support beyond quality core instruction (Burns et al., 2005). Thus, if there are 600 students in the school, then 120 of them would require additional support. Many schools implement a problem-solving team to address the needs of all struggling students, but an effective problem-solving team requires in-depth problem analysis and individualized interventions beyond what can realistically be conducted and delivered for 120 students each year. One goal of effective small-group interventions is to address the needs of most of those students in less intensive format. If the small-group (Tier 2) interventions adequately help 80% of the struggling students, then only 20% of the 120 (24 students) would require additional support, which is less than 5% of the total student population. The likelihood of an effective problem-solving team approach is much higher when addressing 5% of the student population than if attempting to work with 15–20% of the student population.

Tier 2 interventions generally rely on a standard protocol for approximately 15–20% of the student population, but “standard protocol” does not mean that every student receives

the same intervention. Instead, low-level analysis is used to determine what category of intervention is needed for a group of students. For example, students who lack decoding skills will receive intervention A and those who lack reading fluency will receive intervention B. We talk extensively in Chapter 2 about using data to determine which intervention is appropriate for individual students. In this chapter we briefly describe an assessment approach to identify the category of the problem, but cover this topic more thoroughly in the second volume of this book. We also discuss the basic tenets of an effective small-group intervention model and provide examples of small-group interventions.

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IDENTIFYING THE CATEGORY OF THE PROBLEM

Small-group interventions are designed to be more general than individualized interventions, but should still target an individual skill. The National Reading Panel (2000) identified five areas necessary for reading instruction that could also serve as a heuristic for identifying the category of the problem for reading. After students are identified as struggling readers through general outcome measures such as curriculum-based measures of oral reading fluency or group-administered comprehension measures, then single-skill measures of phonemic awareness, phonics, reading fluency, vocabulary, and comprehension are used to identify the root of the problem for reading. We suggest collecting data in the relevant skill to “drill down.” In other words, if a child struggles with reading comprehension, then be sure to screen reading fluency to make sure that the root of the problem is not fluency rather than comprehension—a student cannot comprehend the words if he or she is not reading them. Practitioners should work backward in the sequence (1) comprehension, (2) vocabulary, (3) reading fluency, (4) decoding, and (5) phonemic awareness until they find an acceptable skill and the lowest skill in which a deficit is found would be the appropriate target for a small-group intervention. For example, if a student demonstrated low comprehension, low vocabulary, low fluency, and acceptable decoding, then the intervention would focus on fluency, but the intervention for a student with low comprehension, vocabulary, fluency, and decoding who had phonemic awareness would focus on decoding.

Clearly, reading is a complex process and the aforementioned sequence of skill development will not occur for every child, but it is a common sequence among students who are struggling readers (Berninger, Abbott, Vermeulen, & Fulton, 2006). Therefore, assessing how well a student is progressing through the five skills identified by the National Reading Panel (2000) could provide a useful heuristic for most students who struggle with reading. There are many schools that use one research-based intervention for every student who struggles in reading, but if the intervention focuses on reading fluency and the student does not have adequate decoding skills, then the intervention will not be effective.

Math is similar to reading in some respects, but the research about math interventions is less clear. According to the National Research Council and Institute of Medicine (2009),

math proficiency comprises (1) conceptual understanding, (2) procedural fluency, (3) ability to formulate and mentally represent problems, (4) reasoning, and (5) successful application of math to daily activities (Kilpatrick, Swafford, & Finell, 2001). Thus, much like reading, these areas could be a potential heuristic with which to develop small-group math interventions.

An alternative approach to assessing the areas associated with math proficiency could be to assess the skills within a curriculum or benchmark standard sequence. For example, a study that we conducted (VanDerHeyden & Burns, 2009) found that the sequence of skills presented in Figure 5.1 represented an effective development. In other words, if a second-grade student mastered fact families addition and subtraction 0–20, then they were much

Second grade	Third grade
<ol style="list-style-type: none"> 1. Addition facts 0–20 2. Subtraction facts 0–9 3. Subtraction facts 0–12 4. Subtraction facts 0–15 5. Subtraction facts 0–20 6. Mixed subtraction/addition 0–20 7. Fact families addition and subtraction 0–20 8. Two-digit addition without regrouping 9. Two-digit addition with regrouping 10. Two-digit subtraction without regrouping 11. Two-digit subtraction with regrouping 12. Three-digit addition without and with regrouping 13. Three-digit subtraction without and with regrouping 14. Second-grade monthly math probe 	<ol style="list-style-type: none"> 1. Addition and subtraction facts 0–20 2. Fact families addition and subtraction 0–20 3. Three-digit addition without and with regrouping 4. Three-digit subtraction without and with regrouping 5. Two- and three-digit addition and subtraction with and without regrouping 6. Multiplication facts 0–9 7. Division facts 0–9 8. Fact families multiplication and division 0–9 9. Add/subtract fractions with like denominators 10. Single-digit multiplied by double/triple digit without regrouping 11. Single-digit multiplied by double/triple digit with regrouping 12. Single-digit divided into double/triple digit without remainders 13. Add and subtract decimals to the hundredths
Fourth grade	Fifth grade
<ol style="list-style-type: none"> 1. Multiplication facts 0–12 2. Division facts 0–12 3. Fact families multiplication/division 0–12 4. Single-digit multiplied by double-digit without and with regrouping 5. Double-digit multiplied by double-digit without regrouping 6. Double-digit multiplied by double-digit with regrouping 7. Single-digit divisor into double-digit dividend without remainders 8. Single-digit divisor into double-digit dividend with remainders 9. Single- and double-digit divisor into single- and double-digit dividend with remainders 10. Add/subtract fractions with like denominators without regrouping 11. Multiply multidigit numbers by two numbers 12. Add and subtract decimals to the hundredths 	<ol style="list-style-type: none"> 1. Multiplication facts 0–12 2. Division facts 0–12 3. Fact families multiplication/division 0–12 4. Multiply two- and three-digit without and with regrouping 5. Single-digit divisor divided into double-digit dividend with remainders 6. Single-digit divisor divided into double- and triple-digit dividend with remainders 7. Reduce fractions to simplest form 8. Add/subtract proper fractions/mixed numbers with like denominators with regrouping 9. Add/subtract decimals 10. Multiply/divide decimals 11. Double-digit divisor into four-digit dividend 12. Multiply and divide proper and improper fractions

FIGURE 5.1. Sequence of math skills found by VanDerHeyden and Burns (2009).

more likely to master two-digit addition without regrouping. Most math curricula include a sequence of skills much like this one, or the proposed Common Core Standards Initiative (2010; see www.corestandards.org/) provide a more general skill breakdown that may be useful.

One approach to identifying the category of the problem could be to assess the skills in the given sequence in backward order until the resulting score falls within the instructional level (14–31 digits correct per minute for second- and third-grade students, and 24–49 digits correct per minute for students in the fourth grade or higher; Burns, VanDerHeyden, et al., 2006). The first skill that represents an instructional level would be the appropriate place to start. For example, if assessments with a fourth-grade student found frustration levels (i.e., below the instructional-level criteria mentioned above) for (1) add/subtract proper fractions/mixed numbers with like denominators, (2) reducing fractions to the simplest form, (3) single-digit divisor divided by double- and triple-digit dividends with remainders, (4) single-digit divisor divided into double-digit dividend with remainders, and (5) multiply two- and three-digit numbers with and without regrouping, but instructional-level scores for fact families multiplication/division 0–12, then the intervention would focus on multiplication and division facts 0–12 until they were mastered and would then progress to multiplying two- and three-digit numbers with and without regrouping.

There is considerably more research regarding the reading sequence than either of the proposed math sequences. Thus, using a school's curriculum as a guide is as likely to be successful as any other approach, as long as practitioners frequently collect data to monitor the students' progress. As stated above, there will be much more additional information provided about the proposed sequences in the second volume of this book.

TENETS OF AN EFFECTIVE SMALL-GROUP INTERVENTION

Once school personnel decide the appropriate target for the small-group intervention, how then are the interventions actually delivered? The Institute for Education Science (IES) published a practice guide for RTI for reading and concluded that providing intensive intervention within a small-group format for up to three foundational reading skills was the only aspect of an RTI system for which there was a strong research base (Gersten et al., 2008). They further recommended that the groups meet between three to five times each week for 20 to 40 minutes each session. The practice guide for math RTI found strong evidence for (1) providing explicit and systematic interventions that included models of proficient problem solving, verbalization of thought processes, guided practice, corrective feedback, and frequent cumulative review; and (2) including instruction on solving word problems based on common underlying structures (Gersten et al., 2009).

The two aforementioned practice guides provide an excellent and useful overview of effective practices, but do not provide much specificity about implementation. Below we discuss specific aspects of an effective small-group intervention model based on the IES practice guides and a synthesis of small-group intervention research (Burns, Hall-Lande,

Lyman, Rogers, & Tan, 2006). We focus on service delivery, effectiveness, measurement, and cost.

Service Delivery

The delivery of intensive instruction is a complex and multifaceted process that attempts to answer several questions including Who is teaching? Who are being taught? How long is the instructional sequence? Several researchers offer guidance regarding these matters, and from this guidance we draw some common recommendations.

Who Implements the Intervention?

Perhaps the most common question that we receive regarding small-group interventions regards who actually delivers the intervention. The small-group intervention can be delivered by a fully licensed teacher, peer learners, or volunteer tutors. It makes the most sense for a classroom teacher to deliver the small-group intervention, but expertise in the academic area (e.g., reading) is more important than status as the classroom teacher. Although the teacher is the most costly option, there is a higher assurance of instructional quality and consistency with core instruction when the teacher is providing intensive interventions. Moreover, there is a common argument that our most struggling students often receive support from the least-qualified personnel (e.g., paraprofessionals). We suggest that it is highly advantageous for teachers to deliver the small-group interventions and can do so through scheduling daily intervention time in addition to the 90-minute core instructional block. Students may be flexibly grouped during the intervention time and may not receive the intervention from their own classroom teacher, but a teacher is providing the intervention.

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Teacher involvement through supervision and/or curriculum and materials development seems critical, but there are other viable options for delivering the intervention. Peer learners who are more highly skilled benefit from teaching others, and less-skilled students

can learn via modeling in the “zone of proximal development” (Vygotsky, 1986). Therefore, peer tutors provide an intriguing option for delivering small-group interventions. However, the size of the group is much smaller and usually uses a dyad as opposed to a group. Placing the students in heterogeneous dyads with close teacher supervision could be a way to deliver small-group interventions to more students because one teacher could supervise several dyads (McMaster, Fuchs, Fuchs, & Compton, 2005).

Perhaps the professional most commonly used to implement small-group interventions is an educational assistant or paraprofessional. Certainly there are other options to provide tutoring such as graduate students engaged in research projects (e.g., Vaughn, Wanzek, Linan-Thompson, & Murray, 2007), high school students, or community volunteers. Any of these options can be effective, but only if the intervention is highly scripted and the interventionist is closely supervised by a teacher.

How Big Should the Group Be?

There is a wide range of group sizes within small-group intervention research. A comparison of meta-analyses found that small-group instruction was at least as effective as one-on-one interventions and perhaps more effective and more efficient (D'Agostino & Murphy, 2004; Elbaum, Vaughn, Tejero, & Watson, 2000; Vaughn, Gersten, & Chard, 2000). Thus, groups of 4 to 6 students are probably an optimal combination of effectiveness and efficiency. Younger grades (e.g., kindergarten) might have smaller groups of 2 to 4, and older grades may group children in larger groups such as 8 in middle school but even 10 or 12 for high school. Whatever the ratio, it must be emphasized that these more intensive interventions require closer oversight and involvement of an instructor, and that the group be as large as possible yet still be effective. A group that serves 6 as equally well as 5 should include 6 children to conserve precious resources.

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How Long Should the Intervention Run?

There seems to be a confluence of perspectives on the length of time and duration of the reading intervention across various approaches. The range includes daily half-hour lessons over a span of 12 to 20 weeks (e.g., D'Agostino & Murphy, 2004), daily half-hour lessons of one or two 10-week instructional segments (Vaughn et al., 2007), 30- to 50-minute sessions three times each week (O'Connor, Fulmer, Harty, & Bell, 2005), and 30-minute sessions four times/week for 1 school year (Burns, Senesac, & Symington, 2004). Thus, consistent with the IES practice guide recommendations (Gersten et al., 2009), the interventions should probably be approximately 30 minutes in length and should occur three to five times each week.

Providing small-group interventions is one instance in which more is not always better. In order for the intervention to be effective, it has to be highly and correctly targeted and has to be contextualized within effective instruction. Once the intervention session exceeds approximately 30 minutes, then the interventionist is likely no longer engaged in intervention but is instead providing instruction. All students in the school should participate in quality instruction in math and reading, but approximately 20% of them will receive additional support. We are very concerned that RTI will result in a return to tracked approaches to instruction. Although many of us probably fondly remember our “Bluebird” and “Redbird” reading groups as children, there are literally decades of research that shows poorer outcomes for tracked reading groups. We have to be careful that we are not giving “Tier 2 kids” (or “yellow-zone kids”) and “Tier 3 kids” (or “red-zone kids”) different instruction than “Tier 1 kids” (or “green-zone kids”). In fact, we recommend that school-based personnel avoid using terms like “Tier 2 kids” or “red-zone kids” because they are consistent with a tracking paradigm. There are no “yellow-zone kids” because all students receive quality core instruction, but some may require a Tier 2 intervention to be successful. We have students who receive a Tier 2 intervention, but no “Tier 2 students.”

Once the intervention session exceeds approximately 30 minutes, then the interventionist is likely no longer engaged in intervention but is instead providing instruction.

The length of the intervention over time can be best determined by measurement issues. A minimum of 16 data points at two per week are needed in order to provide slopes that are reliable enough to make decisions (Christ, 2006). Thus, a range of 8 to 16 weeks of intervention are likely

needed to fully evaluate the effectiveness of an intervention. Practitioners could decide after a shorter time period to modify the intervention or to attempt a different intervention within a tier, but should not change the amount of resources needed to implement the intervention until the effectiveness can be adequately judged. In other words, a grade-level team may decide to move a student from the phonics group to the phonemic awareness group after a short period of, say, 3 to 4 weeks, but they would not abandon the Tier 2 intervention to attempt a Tier 3 intervention unless they have enough data to do so.

Effectiveness

The small-group interventions need to be effective. Practitioners could judge the effectiveness of interventions by looking for the effect size reported in research. Effect size is a simple concept in which the effectiveness of the intervention is estimated with standard deviation units and often reported as Cohen's *d* or Hedges's *g*. The mean of the control group is subtracted from the mean of the experimental group, and the difference is divided by the pooled standard deviation. Thus, an effect size of .70 means that the students who received the intervention did .70 standard deviations better than the control group. Essentially, all practitioners have to know is that .80 is generally considered to be a strong effect, .50 a moderate one, and .20 a small effect (Cohen, 1988). Past research on common small-group interventions demonstrated at least moderate effect sizes (e.g., up to .40 and .49, McMaster et al., 2005; .44 to .99, Burns, Dean, & Foley et al., 2004). The focus of small-group interventions should be on efficiency. We want to help as many students as we can within Tier 2, but will do whatever it takes to help a student in Tier 3. Thus, we try to help a large number of students with small-group interventions while also conserving resources for Tier 3, and a moderate effect size (approximately .50) may be sufficient.

Cost

An educational program is considered cost effective if it can generate the same results at a decreased cost, or significantly improved results at the same cost (Hartman & Fay, 1996). For example, delivering services to a student with academic problems and/or behavioral issues in the general education classroom costs approximately 22% of the total cost to deliver services to the same child in a special education classroom for 1 year (Sornson, Frost, & Burns, 2005), which suggests that preventing student difficulties with small-group interventions can have significant cost-savings implications.

A small-group intervention could be considered cost effective if it reduces the need for special education while simultaneously enhancing instructional services and resulting stu-

dent proficiency for a large group of students in the regular education classroom. Tier 2 has the efficiency advantage over Tier 3 in that more students are served. Thus, initial costs should be weighted against potential cost savings over a period of 5 to 10 years, or longer, assuming the intervention is effective. However, school personnel should be

highly efficient in selecting small-group interventions. There are a number of commercially prepared interventions that work well for delivering small-group interventions, and purchasing products saves considerable time in developing materials while likely enhancing the consistency of implementation. Many of the commercially prepared interventions with the strongest research base do not cost much money. Thus, practitioners should be weary of the intervention systems that costs several thousands of dollars and should consider whether that intervention program available at *www.amazon.com* for \$19.99 would be just as good; in our experience, it often times is.

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SMALL-GROUP ACADEMIC INTERVENTION PROGRAMS

School personnel should engage in low-level analysis to determine the appropriate intervention target within Tier 2, and should deliver it within a small group. Thus, small-group interventions are often more broadly focused and not as easy to describe in one or two pages. We refer you to the Florida Center for Reading Research's (FCRR) website (*www.fcrr.org/FCRRReports/CReportsCS.aspx?rep=supp*) for a list of research-based commercially prepared interventions and a rating as to how well each addresses phonemic awareness, phonics, fluency, vocabulary, and comprehension. After identifying interventions, we recommend that schools create a menu from which grade-level teams can select. An example of a K–12 menu is provided in Figure 5.2. The interventions selected in Figure 5.2 were taken from the FCRR's website and include those that were highly rated for the corresponding NRP area, and for which there is an acceptable research base. For example, there could be multiple intervention groups for students in second grade with those who require remediation in phonics receiving Phono-graphix (McGuinness, McGuinness, & McGuinness, 1996) and those who need help with vocabulary participating in Building Vocabulary Skills (Graves, 2006).

Small-group interventions for math are more difficult to identify because there is no math equivalent of the FCRR. However, given that fluent computation is an important goal for math (National Council of Teachers of Mathematics, 2000; National Mathematics Advisory Panel, 2008), it could be a target for small-group interventions. Students compute fluently when they solve math problems more quickly by recalling the answer than by performing the necessary mental algorithm (Logan, Taylor, & Etherton, 1996). For example, fluent computation can occur when a student can look at $4 \times 3 =$ and quickly recall that the answer is 12 without counting $4 + 4 + 4$. Students with math difficulties frequently

Grade	Phonemic awareness	Phonics	Fluency	Vocabulary	Comprehension
Kindergarten	Road to the Code	Road to the Code	NA	Text Talk	NA
First grade	Road to the Code	Road to the Code	NA	Text Talk	NA
Second grade	Fast Forward Language	Phono-graphix	Six-Minute Solution	Building Vocabulary Skills	Comprehension Plus
Third grade	Fast Forward Language	Phono-graphix	Six-Minute Solution	Building Vocabulary Skills	Comprehension Plus
Fourth grade	NA	REWARDS	Six-Minute Solution	Building Vocabulary Skills	Comprehension Plus
Fifth grade	NA	REWARDS	Six-Minute Solution	Building Vocabulary Skills	Comprehension Plus
Sixth grade	NA	REWARDS	Six-Minute Solution	Building Vocabulary Skills	Thinking Reader
Seventh grade	NA	REWARDS	Six-Minute Solution	Read On	Thinking Reader
Eighth grade	NA	REWARDS	Six-Minute Solution	Read On	Thinking Reader
Ninth grade	NA	REWARDS	Six-Minute Solution	Read On	Questioning the Author
Tenth grade	NA	REWARDS	Read Naturally	Read On	Questioning the Author
Eleventh Grade	NA	REWARDS	Read Naturally	Read On	Questioning the Author
Twelfth Grade	NA	REWARDS	Read Naturally	Read On	Questioning the Author

FIGURE 5.2. Sample intervention matrix for reading.

struggle to quickly recall basic math facts (Geary, Hoard, Byrd-Craven, Nugent, & Numtee, 2007; Hanich, Jordan, Kaplan, & Dick, 2001), and given that the level of analysis that can be conducted with 20% of the population is low, interventionists should focus on determining on what skill they should intervene rather than how to address it. Many students who are not proficient in more advanced math problems lack fluency of the basic skills within them (Houchins, Shippen, & Flores, 2004), and teaching basic or component skills (e.g., single-digit multiplication), usually through repeated practice, led to increased performance of the more advanced skills (Dehaene & Akhavein, 1995; Singer-Dudek & Greer, 2005).

There are commercially prepared interventions that enhance the fluency with which students complete basic math skills. Previous research found that Math Facts in a Flash (MFF; Renaissance Learning, 2003) led to increased math computation skills among classrooms of students (Ysseldyke, Thrill, Pohl, & Bolt, 2005) and among students receiving a Tier 2 intervention for math (Burns, Kanive, & DeGrande, in press). Because MFF is delivered with a computer, a relatively large number of students could participate at one time. Thus, MFF could be a potential small-group intervention for Tier 2 math. However, the fluency-

based interventions outlined in Chapter 3 are also plausible for small groups, except here the students would be given the skill in the curriculum sequence at which their score fell at the instructional level. Moreover, many of the interventions for individual students that are described in the subsequent chapters could be modified to work with small groups. Interventionists would only have to take the effective practices outlined in the coming chapters and modify them according to the tenets of effective group interventions. Doing so would make the interventions more efficient, but they may be less effective for individual students within the group.

CONCLUSION

One of the basic facts of small-group interventions is that they will likely work for many students, but not all of them; and that is OK. Teachers and interventionists are dedicated to helping every student, but realizing that their actions will not help every student is extremely hard to accept. Thus, practitioners often engage in high levels of analysis for large groups of children, often with negative results. However, our small-group interventions should focus on categories of problems, and more in-depth analyses are reserved for students for whom the small-group intervention is not successful. We offer evidence-based small-group interventions for increasing reading comprehension on pages 56–59 at the end of this chapter. Fortunately, a well-implemented small-group intervention will help a large proportion of students, as long as it is correctly targeted and implemented in a manner that is consistent with what we know about effective interventions for small groups.

Repeated Reading with Error Correction

Brief Description

The small-group repeated reading intervention combined several approaches and is based on research by Klubnik and Ardoin (2010). This is an intervention for students with adequate decoding skills, but who need to become more fluent. In other words, students should read at least 93% of the words correctly from grade-level (or instructional) material. The groups can vary in size but generally include three to four students.

What “Common Problems” Does This Address?

Because of the close link between reading fluency and comprehension, students need to be able to correctly read approximately 50 to 60 words per minute in order for comprehension to occur. Thus, the intervention is appropriate for a group of students who need additional focused practice to obtain a fluency level at which comprehension can occur.

Procedure

1. Group the students into small groups of three or four.
2. Give each student a copy of a reading passage. The passage should fit on one page and should not include pictures. However, it should be somewhat engaging in topic and writing. Each student should be able to read at least 93% of the words correctly.
3. Have each student read one sentence at a time. For example, Student 1 would read the first sentence, Student 2 the second sentence, and so on. The order is then repeated until the passage is completed.
4. The passage is then read two additional times, with a different student reading first each time so that students have a chance to practice different sentences.
5. The interventionist follows along as the students read the sentences and records errors and which student made them. A word is considered an error if it is incorrectly read, skipped, or read correctly but not within 3 seconds.
6. Each time after the passage is read, the interventionist then corrects student errors. Have each individual student go back to the word and reread it if he or she can. If the student does not read the word correctly within 3 seconds, then say the word for him or her and ask him or her to read the sentence that contains the word two times.
7. After correcting the errors, begin reading the next passage. If the error corrections were from the third and final oral reading, then have the students silently read the passage and ask any questions. The interventionist should then ask a few short comprehension questions to the group and discuss the answers.

(cont.)

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Critical Components That Must Be Implemented for the Intervention to Be Successful

The students need to be able to read at least 93% of the words. Thus, errors should be rare, but should not be corrected while the students read. Allow them to finish the passage first. Repetition of the missed words is important, but have them read the words in text by reading the sentence that contains the word rather than just repeating the word in isolation.

Materials

- Enough copies of the text for each student to have his or her own.
- Incentives as needed.

Reference

Klubnik, C., & Ardoin, S. P. (2010). Examining immediate and maintenance effects of a reading intervention package on generalization materials: Individual versus group implementation. *Journal of Behavioral Education, 19*, 7–29.

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Manipulation Strategy for Comprehension

Brief Description

The small-group manipulation strategy is a comprehension-oriented intervention designed by Glenberg, Brown, and Levin (2007). It involves using toys and small objects to act out short action statements and can be conducted in a small group of about four students.

What “Common Problems” Does This Address?

A small-group manipulation strategy is appropriate for children who read fluently but who struggle with comprehension. This is a low-level comprehension intervention and is likely appropriate only for young children.

Procedure

1. Write eight action statements from a short narrative story. Be sure that the statements are short and are in the same sequence as the actions appear in the story.
2. Gather small toys or objects that correspond to the action statements (e.g., a toy cow for a story about a cow).
3. Group the students into small groups of three or four and have them sit around a small table.
4. Lay out all of the toys and small objects on the table and name each one.
5. Read the first action statement aloud and act out the statement with one of the toys while saying your thoughts out loud. Be sure to explain why you perform each action.
6. Have each student read one action statement and then act out the statement with a small toy. The student can have a second student participate if needed and desired.
7. After completing all of the statements, ask students some questions about what they read. Also, be sure to ask meta-analytic questions that ask what word told the students what to do.

Critical Components That Must Be Implemented for the Intervention to Be Successful

Because this is a comprehension intervention, metacognition is extremely important. Be sure to model why you selected a particular toy or small object, identifying the action word and explaining how it suggested a specific activity. Moreover, the students should be able to read the short sentences with little assistance.

Materials

- About eight action statements taken from a story written on a sheet of paper in sequential order.
- Enough copies of the sheet of statements for each student to have his or her own.
- A collection of small toys and objects that represent the characters and objects in the statements.
- Incentives as needed.

Reference

Glenberg, A. M., Brown, M., & Levin, J. R. (2007). Enhancing comprehension in small reading groups using a manipulation strategy. *Contemporary Educational Psychology*, 32, 389–399.

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Text Previewing

Brief Description

Research by Graves, Cooke, and LaBerge (1983) found that simply having students preview text increased comprehension. They implemented a simple strategy that was developed for narrative text, but could be modified for expository text. The intervention involves three steps. The groups can vary in size but generally include five to eight students.

What “Common Problems” Does This Address?

Previewing is a simple intervention that is quick and easy but is not very intensive. Thus, it is appropriate for students with acceptable reading fluency but who lack comprehension. Moreover, this is probably a good approach for content-area instruction at the secondary level.

Procedure

1. Identify five to eight students who need additional support for reading comprehension and have them sit at one table.
2. Provide each student with a copy of the book or reading passage.
3. The first step in previewing is to engage students with the text, which is done by providing short statements or questions about the text. These statements or questions should highlight the most interesting aspect of the text.
4. Next, briefly describe the major elements of the text.
 - a. Describe the setting of the story or the broad context of the expository text.
 - b. Describe characters and points of view within a narrative text.
 - c. Describe the plot for a narrative text or the major points of an expository text.
5. Finally, write the names of the characters from narrative text or keywords from expository text on 3" X 5" index cards. Then point to each card while reading the name/word.
6. Have each student read the text and discuss various short comprehension questions.

Critical Components That Must Be Implemented for the Intervention to Be Successful

The students should be able to read at least 93% of the words and the text should be about concepts of which they have a basic understanding. Moreover, the interventionist should be sure that all students are paying attention and participating.

Materials

- Enough copies of the text for each student to have his or her own.
- Index cards with words written on them.
- Incentives as needed.

Reference

Graves, M. F., Cooke, C. L., & LaBerge, M. J. (1983). Effects of previewing difficult short stories on low ability junior high school students' comprehension, recall, and attitudes. *Reading Research Quarterly, 18*, 262–276.

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