The Low Incidence of Reading Refusal or Avoidance in Schools Using Direct Instruction for Core Instruction

Introduction

This summer I learned a new term in education – *reading refusal*, also referred to as *reading avoidance* or *anxiety*. This term and the phenomenon it represents appear to be fairly widespread as they are the subject of articles, social media posts, and a conference. However, *they are virtually unknown in classrooms implementing Direct Instruction (DI) with fidelity*. In this article, I will:

1. give a brief description of reading refusal/anxiety and its importance,
2. provide a set of questions to guide practitioners as they analyze a specific instance of reading avoidance,
3. explain why the incidence of reading refusal is so rare in classrooms implementing DI with fidelity, and
4. describe how to avoid reading anxiety in DI classrooms by implementing the approach as designed.

In addressing bullet #4, I will describe a measure of student performance that is used by DI coaches to assess ongoing placement in the DI programs that can also be used as a numerical gauge of possible student frustration. My colleagues and I work with schools that implement DI with fidelity, but there are many schools that purchase the DI programs without receiving proper training and support. In schools that don't have proper training and support, students are sometimes misplaced in the programs and become frustrated with the instruction they receive.

WHAT IS READING REFUSAL/ANXIETY?

As its name implies, reading refusal/anxiety/avoidance occurs when a learner refuses to read in front of other students and/or adults. When they are asked to read, they may demonstrate a range of techniques or strategies to avoid reading out loud. This avoidance is driven by the degree of success they have experienced in the past as well as their success with the material and tasks they have encountered in school recently. Here is a passage from https://www.readabilitytutor.com/blog/anxiety-about-reading-at-home that conveys the impact on a child who is experiencing reading anxiety:

> Reading anxiety is more than just disliking books—it's a deep emotional response of fear, frustration, or overwhelm that arises when a child is expected to engage with reading tasks. For children experiencing reading anxiety, simply being asked to read aloud can feel like standing under a spotlight with all eyes watching, waiting for them to stumble. This anxiety isn't about laziness or unwillingness—it's a reaction rooted in fear of failure, fear of judgment, and past experiences that have chipped away at a child's confidence. Left unaddressed, reading anxiety can lead to long-term avoidance of books, hinder literacy growth, and affect a child's academic progress and emotional well-being.

One way adults can increase their empathy for children who are experiencing reading anxiety is to put themselves in a situation where they are expected to perform far beyond their preparation or abilities. In my closing comments at this past summer's National Direct Instruction Conference https://nifdi.org/training-events/national-di-conference/, I suggested that adults without a background in physics could jump into a 3rd-year college-level course if they wanted to experience the embarrassment, feelings of inadequacy and self-doubt that hundreds of thousands of children around the country experience every day when they are presented with lessons that are too difficult for them. See https://www.youtube.com/watch?v=-YqimQMb2FM. But to experience these feelings fully, there would need to be an expectation by all involved that the adults *should be able to thrive* in the 3rd-year college-level physics course. In many schools, there is immense pressure and expectations on all children to perform at grade-level expectations -- even those who clearly do not possess the perquisite skills for doing so.

QUESTIONS TO ASK WHEN STUDENTS EXHIBIT READING ANXIETY

The most fundamental question to ask when a student display reading anxiety is whether a student who avoids reading has already demonstrated that they possess the skills to read the material they are being asked to read. If they have demonstrated the skills previously, the situation is one of motivation. So if you encounter a student who refuses to read, it is essential to determine whether it is a "won't do" or a "can't do" problem. Bring the student to an area separate from his/her peers and present the student with a series of tasks. Praise effort and successful reading throughout. First, ask the student to read a passage that he/she has read in the past with very few errors. If the student reads the simpler passage correctly, present the current material to the student and ask him/her to read it. If the student reads the current material successfully, bring the student back to the instructional group and ask him/her to read the current material again. If the student does not read the current material successfully in the one-on-one setting, you will need to identify the student's deficits and teach him/her to mastery on all prerequisite skills (preskills) before asking the student to read in front of the group.

If the student refuses to read in a group setting but has demonstrated the skills to do so in a one-on-one setting, there are a variety of reinforcement systems that can be used to encourage the student to read in front of the group. See https://nifdi.org/nifdi-services/support-services/positive-behavior-management/ and https://nifdi.org/nifdi-services/training/routines-and-expectations/ as examples of reinforcement systems.

Dr. Suweeyah Salih of Cleveland, Ohio recently posted a list of steps to address when diagnosing reading anxiety (https://www.linkedin.com/posts/dr-suweeyah-salih_a-student-who-avoids-reading-is-not-an-avoidant-share-7494121568491696128-fc3Z/):

> A student who avoids reading is not "an avoidant student."
> A student who jokes during reading is not automatically "the class clown."
> A student who shuts down is not simply "lazy."
> Those labels may feel efficient, especially in a busy school day. But labels can make us less curious.

Reading avoidance is not a personality.
It is a behavior happening in a context.
The better questions are:
When does it begin?
What task triggers it?
Who is watching?
What kind of reading is involved?
Does it happen during oral reading, independent reading, vocabulary, comprehension, or written response?
What support is missing?
Labels close the conversation.
Patterns open it.
When educators look for patterns, we are more likely to find the support students actually need.

A widespread, adult-induced pattern in schools across the country is to place students in material that is too difficult for them. This has been institutionalized in many schools implementing the Science of Reading with *Tier 1 instruction at grade level for all students*. In many cases, children without skills to succeed at grade level receive most of their literacy instruction at grade level (e.g., 90 minutes daily) instead of at their instructional level in a Tier 2 reading group (e.g., only 20 minutes 2-3 times/week). Often, the amount of time they spend struggling greatly exceeds the amount of time they spend succeeding, and when they struggle, the incidence of reading refusal can be expected to increase.

The common practice of grade-level Tier 1 instruction is a tragic arrangement in schools. Teachers and leaders alike believe they are working in the best interests of their students, yet they are increasing learning gaps and fostering reading anxiety, as I addressed in the closing comments, https://www.youtube.com/watch?v=-YqimQMb2FM. So when you observe a mismatch between a student's reading level and the level of instruction they are receiving, it is imperative to determine *what type of adjustments can be made in scheduling and grouping* to ensure that the student receives instruction at their performance level and not at their frustration level.

WHY THE INCIDENCE OF READING REFUSAL IS SO RARE IN CLASSROOMS IMPLEMENTING DI WITH FIDELITY

Reading refusal is so low with Direct Instruction because *a centerpiece of the DI approach is to teach students at their instructional level every day, all the time*. DI has been designed to ensure that students master the concepts and skills they encounter each day, which helps build their confidence in their own abilities and their enthusiasm for each day's lesson. When implemented with fidelity, DI leads to remarkable academic outcomes at the same time that it leads to very strong, positive student attitudes toward school and their own abilities. In this section, I will discuss the following topics:

1. the DI design features that lead to positive students' attitude toward reading (or any other subject area),

2. teacher behaviors that facilitate the same,
3. organizational structures that foster academic success, which leads to positive student attitudes, and
4. evidence of DI's positive effect on academic as well as student attitudes with a focus on Project Follow Through.

DI Design features that lead to positive students' attitude toward reading (or any other subject area)

DI programs contain a unique design that facilitates student success. In a recent webinar sponsored by the Reading League of Illinois, I gave a summary of the most essential DI design principles. See: https://www.youtube.com/watch?v=D7Zne5gU2c0. Here are some of essential features of the DI program design:

Proper placement – Students are placed at their instructional level, not their grade level. All students are given a placement test that is used to match each student's skills with the lessons they receive initially. Most DI programs have multiple entry points. For example, there are five initial placements in the Kindergarten level of the *Reading Mastery Signature Edition* language program (Lessons 1, 11, 21, 31, 41).

Separating concepts or items that might confuse children – An example of an instructional sequence that confuses many children is teaching letter sounds and/or symbols in the alphabetic order. Children who are not familiar with symbols will tend to treat them as objects, in which case it is completely logical for them to conclude that the letters *b* and *d* are the same as each other as well as the same as the letters *p* and *q*. In the *Reading Mastery Signature Edition* (RMSE), the introduction of the *b* and *d* symbols are separated by nearly a hundred lessons, and the symbols themselves are different so they are not mirror images of each other.

Learning preskills clearly before more advanced skills – For students to learn higher order concepts and skills, they need to master prerequisite skills. In the DI programs, preskills are taught explicitly before they are incorporated into more advanced learning. Examples discussed in Chapter 2 of *Direct Instruction: A Practitioner's Handbook* (https://tinyurl.com/direct-instruction-handbook) include using a "carrying box" to guide students learning to write the correct number in the tens column for column addition, and preteaching the sounds that letters make in specific words several lessons before the words appear in stories.

Explicit modeling of expected student responses – Any new skill or concept is modeled by the teacher with sufficient explanation for students to understand what's required for a task. The teacher says, "My turn!" and demonstrates the sound a newly introduced letter makes, how to blend letters together orally, the correct prosody of a complex sentence – whatever the focus of the new learning. This explicit modeling provides scaffolding that reduces the difficulty of tasks for students and thereby reduces their anxiety to participate.

Engaging presentation – The teacher presents tasks at a fast rate (adjusting for the difficulty of tasks), which keeps engagement high. Students respond frequently in groups and individually in response to the teacher's questions. The teacher's presentation is facilitated by a script that contains wording and examples that have been tried out with students and revised as needed before publication. Because the script details everything the teacher needs for the lesson, the teacher doesn't need to pause to think of consistent wording or appropriate tasks or examples.

Teaching to mastery – The teacher corrects all errors and provides sufficient practice so students are able to master the skills covered in each lesson. This provides students with a firm foundation for future learning, which gives them confidence that they will be able to master future lessons. The structure of practice in the DI programs has been recognized by Carl Hendrick (and other experts in Cognitive Science) as containing all of elements of the Science of Learning. See his opening keynote at the most recent National DI Conference: https://www.youtube.com/watch?v=h-eZgac_66k.

Incremental step design – Mastering the skills covered is facilitated by a unique incremental step design. Only 10-15% of any lesson is new, which means that students who mastered previous learning will have only a small amount to learn to master all of the content of the next lesson. The remaining 85-90% of a lesson is review or applications of previously introduced skills and concepts, which allows students to achieve automaticity/fluency with the material, which in turn provides a strong basis for future learning. So the small-step design leads to frequent reinforcement because the students perform at a high level of mastery and automaticity.

Homogeneous and flexible grouping – Students with similar skill profiles are grouped together, which allows for more efficient teaching. That way, the new material one student in the group is ready to learn generally is the same as the new material the other students in the group are ready to learn. And the type of mistakes one student makes are probably similar to the mistakes other students in the group tend to make. In contrast, if students are not at the same instructional level, some students will make a disproportionately larger number of errors, which can lead to a lowering of those students' self-concept and willingness to read. The instructional groups are flexible to accommodate different rates of learning.

Teacher behaviors that foster positive students' attitude toward reading

In addition to implementing the Direct Instruction programs with fidelity so the design elements have their maximum positive effect on students' attitude toward reading, teachers can foster a culture of participation and respect that further enhances students' positive attitude toward reading. When the National Institute for Direct Instruction (NIFDI) provides program training, we share the STAR rules as an example of specific behaviors that teachers can encourage to promote efficient instruction:

Sit tall (for older students, it can be *sit up)*

Talk big (we use *track* for older students as they use their fingers to follow along while other students read)
Answer together
Respect others

The teacher acknowledges when students adhere to these rules and allocates points to the instructional group, which helps build a feeling of camaraderie among the students. Celebrations of academic accomplishments further lead to group cohesion and support for each other. Students often send positive support to each other as they read individually by moving their fingers silently in the direction of the student who is reading (referred to as "twinkle hands," "spirit fingers," or other names).

Organizational structures installed by school & district leaders

The way in which school and district leaders facilitate DI implementations can play a very large role in the success of a DI implementation and the development of students' positive attitude toward reading. Many of the key factors underpinning the success of DI are determined by school or district leaders: the use of DI for core instruction vs. supplemental instruction, the amount of time allocated to DI, placement & grouping procedures, adjustment of instruction based on the results of in-program assessments, etc. Using DI as core instruction and adhering to all of the guidelines described in *Direct Instruction: A Practitioner's Handbook* (https://tinyurl.com/direct-instruction-handbook) will lead to greater academic success – and greater student self-confidence – than implementing DI as a supplement to a grade-level Tier 1 program that is far too difficult and ineffective for students and leads to reading avoidance.

We at NIFDI (www.nifdi.org) have consistently found that school leaders, coaches, and teachers need implementation guidance and support to ensure that DI design features are carried out as intended to maximize their positive impact on student performance. The design features themselves are powerful, but having the systems, coaching, data use, and ongoing support in place is an important part of translating those features into the results highlighted below. NIFDI provides on-site and remote coaching to help schools use student data to create and adjust groups appropriately, as well as to ensure that mastery is consistently monitored and maintained (through weekly data analysis of mastery and lesson progress).

Evidence of DI's effect: Project Follow Through and duration of implementation

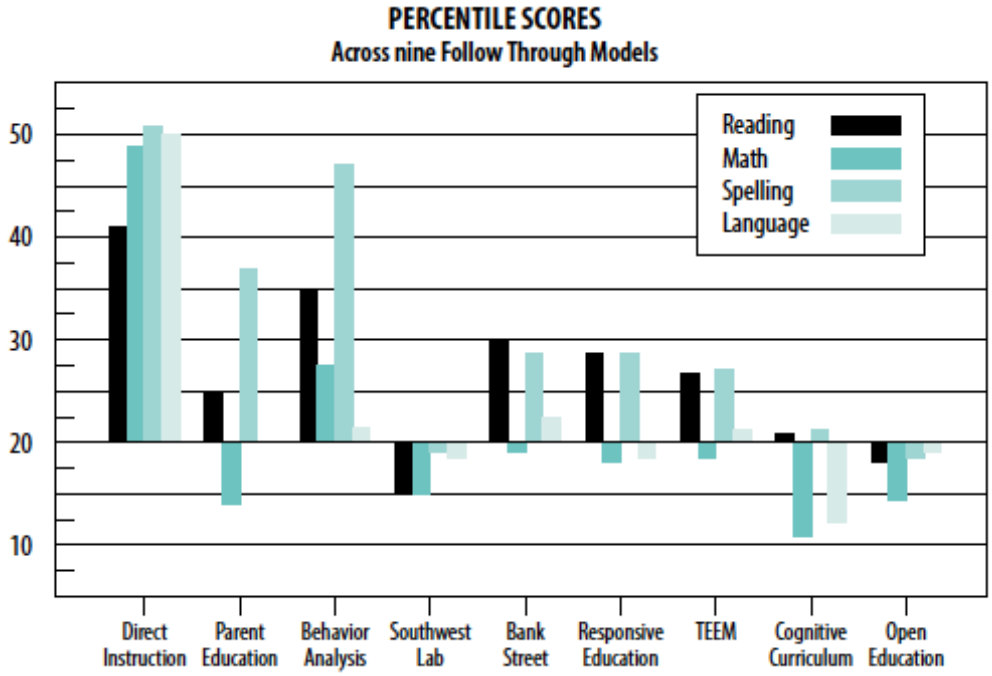
Direct Instruction has a long and impressive record of positive evidence of effectiveness on reading outcomes and students' self-image. A key resource on the research base for DI is *All Students Can Succeed*, published in 2020 and authored by Jean Stockard and colleagues (available at https://rowman.com/ISBN/9781498588478/All-Students-Can-Succeed-A-Half-Century-of-Research-on-the-Effectiveness-of-Direct-Instruction.) The book contains a meta-analysis of all studies involving DI – a monumental work going back to the 1960s. The authors examined 455 studies and claim it's the largest meta-analysis on any single instructional methodology.

Table 1: Effect Sizes of Studies on DI Reading by Length of Intervention

Length of Implementation	Mean Effect Size	Number of Studies
.5 Year or Less	.35	30
.5-1 Year	.56	47
1-2 Years	.48	96
2 or More Years	.76	50

The authors examined DI's effectiveness on student outcomes for different academic subjects, including 223 studies on reading. Table 1 above shows that *the effect of DI on reading performance increases with the length of intervention*. The average effect size of studies of implementations lasting two years or more (.76) is more than twice the size of the effect size of studies of implementations of DI reading for half a year or less. While the average effect size of the shorter duration is still positive and educationally significant (.35), an effect size of 0.70 or greater is considered to indicate a large and strongly positive effect.

Table 2: Academic Outcomes of Third-Grade Students in Project Follow Through (1968-1977)

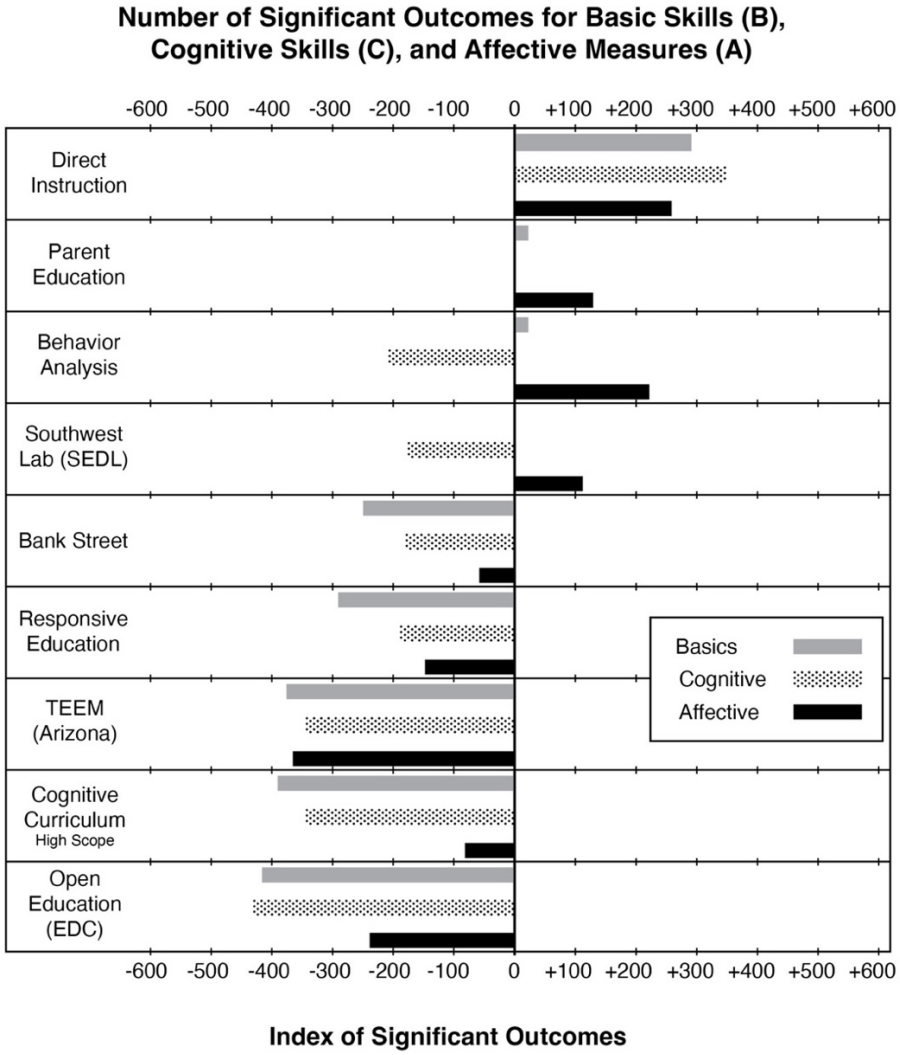


Source: Adams, G. (1996). "Project Follow Through: In-depth and beyond." *Effective School Practices*, 15(1), 51.

The largest educational experiment in history, Project Follow Through (PFT), compared the effect of DI on the outcomes of students from low socio-economic backgrounds against the effect of other instructional approaches. The goal of PFT was to determine whether any instructional approaches, called models, could help improve academic and self-esteem outcomes of children in Title 1 schools, which had students that scored at the 20th percentile on average. Table 2 above shows the percentile scores of 3rd graders in schools across the country who had received instruction in the different models since they were Kindergartners. All but a

few of these models had discovery learning as their guiding principle. The student outcomes for several of these models were lower than those of the control groups at the 20th percentile. In contrast, students who received DI scored higher than students in all of the other models in all categories. Children in the DI model approached and even exceeded the 50th percentile in several academic subjects.

Table 3: Outcomes of Third-Grade Students in Project Follow Through by Type of Measure



From: Engelmann, S., and Carnine, D. (1991). *Theory of Instruction: Principles and Applications (Rev. Ed.).* Eugene, OR: ADI Press, p. 356. Available for purchase at https://www.nifdi.org/store/product/2-theory-of-instruction.html.

Students who received instruction in the DI demonstrated higher results in basic skills, cognitive skills and *affective measures (measures of self-esteem)*. Hundreds of comparisons using multiple measures were used to compare sites implementing the different models and local control sites. Table 3 above shows the net number of outcomes favoring each model's sites in comparison to sites that served as controls. A zero score indicated that there was an equal

number of outcomes favoring a model's sites in comparison to the control sites. A positive score indicated that there were more outcomes favoring the model's sites. A negative score indicated that there were more outcomes favoring the comparison sites. The first three bars in the chart indicated that there were nearly 300 outcomes favoring the DI sites in basic skills, about 350 outcomes favoring DI sites in cognitive skills, and over 250 outcomes favoring DI sites in affective skills (dealing with self-esteem) relative to comparison sites.

The DI model had the highest number of positive outcomes in all three skill categories – cognitive outcomes, basic skills, and affective outcomes. Students in only three other Follow Through models performed higher than the comparison schools in any category (with net positive outcome scores). Students in most of the other Follow Through models performed lower than the comparison schools in all three categories (with net negative outcome scores). Several models specifically focused on promoting self-esteem, but *the DI approach in which students saw evidence of their improved performance every day led to far superior results in terms of students' confidence in themselves and their abilities*.

How to avoid reading anxiety in DI classrooms

Students refusing to read in with DI is exceedingly rare. If you are a teacher who is implementing DI or a coach or leader who supports DI in your school or district and a student is hesitant to read or participate in any DI-related activity, make sure that the program is being implemented as intended for the child. See Chapters 8-10 of *Direct Instruction: A Practitioner's Handbook* https://tinyurl.com/direct-instruction-handbook for guidance on successfully implementing the DI programs. (Or contact NIFDI at https://nifdi.org/nifdi-contact-form/.)

As mentioned above, placement tests that are specific to each program level should be used to form instructional groups. See: https://nifdi.org/programs/placement-testing/. A different procedure is used to verify that each child is placed at a lesson that matches their instructional level on an ongoing basis. This procedure, which relies on *first-time correct responses*, has a high threshold for mastery. Students should respond correctly at least 70% the first time they encounter brand new material, and at least 90% the first time they encounter a skill or concept in the current lesson that was taught previously in the program. If students are placed appropriately initially and taught to mastery every day, these first-time correct percentages are obtainable. (For information on first-time correct observations, see pages 332-337 of *Direct Instruction: A Practitioner's Handbook* https://tinyurl.com/direct-instruction-handbook, or attend NIFDI Coaches' Training, described at https://nifdi.org/training-events/academies/coaching-academy-2/ and https://nifdi.org/training-events/institutes/coaching-institute/.)

For non-DI classrooms, the percentage of student responses should outweigh the number of errors greatly, and it is possible to develop a specific percentage of recommended first-time correct responses based on positive behavior management guidelines. Research has indicated that (at least) a 4:1 positive-to-negative ratio of feedback to learners results in a reinforcing classroom environment. So the same ratio can be applied to errors: students should be successful at least 80% of the time. If they are not, *instruction should be adjusted until students*

can answer correctly at least 80% of the time the first time they respond during instruction on average. Not coincidentally, this percentage is half way between the two percentages used for first-time correct thresholds in DI for new skills and concepts on the one hand, and skills and concepts in the current lesson that were taught previously in the program.

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