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Where Our Research Led: Classroom Instruction

This is a book about classroom instruction – delivering effective lessons to students. We're going to present to you what we have discovered about education and what it takes so that students can do it – and not just some students, but all students.

The essential classroom instructional skills presented in this book are not all new techniques. Many are tried and true research-based strategies that have been around for a long time. I like to think that we "operationalised" one hundred years of educational research into our own unique, easy-to-understand instructional model that we call Explicit Direct Instruction. Throughout the course of this book, we define what essential instructional skills are, show what they look like in the classroom and describe why they are important to use.

Reading the research-based literature and even teaching in the classroom was not what allowed us to be able to write this book about classroom teaching. It wasn't until we did our own classroom investigations that we really understood educational processes and were able to connect what research was saying to what should be happening in the classroom. We did this by going into thousands and thousands of classrooms to measure and quantify the actual techniques being used, to see how students are, in fact, being taught. What we found surprised us. Although most teachers know the words of instructional methodology, such as Modelling, Learning Objective, Guided Practice and Checking for Understanding, there are many different interpretations of what each technique looks like in the classroom. In addition, we discovered that there are wide variations in levels of implementation of instructional methodology in the classroom.

Although Silvia and I originally started our company to use real data to help students learn more, our unyielding focus on measuring, monitoring and improving educational processes is turning into one of the largest educational research projects ever conducted. At DataWORKS we and our staff of researchers have:

- Disaggregated four million state-level student test results from across the USA.
- Collected and analysed 2.3 million student assignments to measure alignment to specific state content standards. This DataWORKS-developed process is called Curriculum Calibration and has been conducted in several states. One of our largest projects included analysing 646,270 student assignments from 761 schools for the South Carolina Department of Education. You can read about this project and see the results on their Web site http://ed.sc.gov/agency/offices/cso/enhance/curriculumcallibration-overview.htm.
- Observed twenty-five thousand teachers across the US. We developed a process called Instructional Calibration, where we sit in the back of classrooms to quantify classroom implementation (and sometimes lack of implementation) of 119 specific classroom practices, such as lesson design components, lesson delivery strategies, cognitive strategies, English Learner strategies, time-on-task and use of higher-order questions.
- Surveyed more than one hundred thousand educational stakeholders to collect perception data from students, parents, teachers and administrators.

Enough about data. Let's turn the page and start thinking about optimising classroom instruction so your students will say, "I can do it!"

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What Is Effective Instruction?

Are Some Approaches Better Than Others?

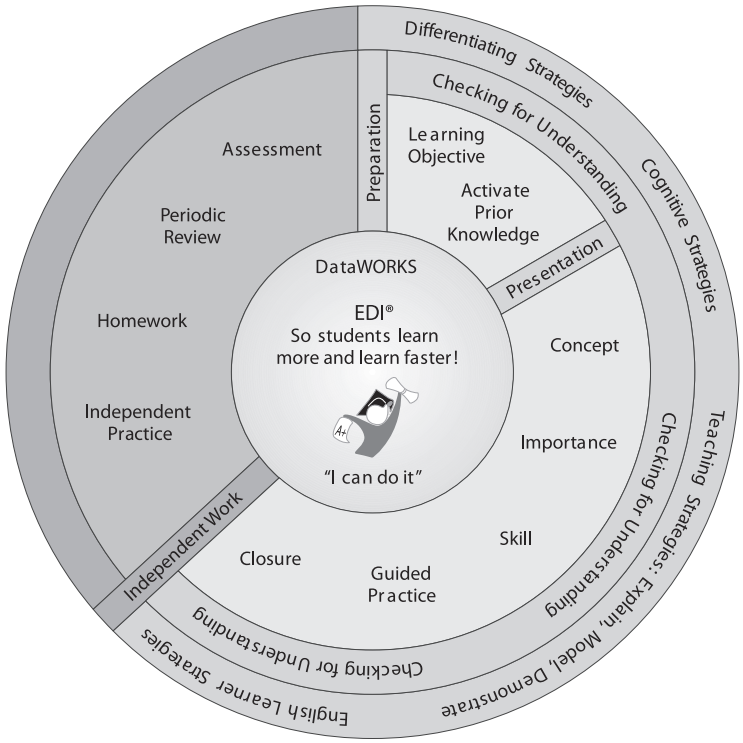

Figure 2.1 Explicit Direct Instruction includes both design components and delivery strategies.

We'll begin with a short philosophical discussion about education and various educational approaches. Then we'll provide an overview of Explicit Direct Instruction (EDI).

By the time you finish this book, you will be able to write and teach well-crafted EDI lessons that help students learn more and help students learn faster. If you are an administrator, you will be able to identify effective instructional practices in the classroom and support teachers in using them.

But you don't need to read the entire book to come up with specific strategies that make teaching more effective. Here are two right now:

1. When asking a question, always present it to the entire class before selecting a student to respond.
2. Pause several seconds before selecting a student to respond to a question. While you are pausing, students don't know which person you will select, and they all start thinking about the answer in case they are called upon.

Why Children are sent to School: Talent Discovery Versus Talent Development

Formal education is based on the premise that students learn as a direct result of classroom instruction. In fact, that's why children are sent to school for thirteen straight years – to be taught in an organised fashion by a teacher standing in front of the class.

From DataWORKS' classroom visitations, we have observed that about 20% of students will do well independent of the effectiveness of classroom instruction. We call this **talent discovery.** Sometimes, the exemplar essays stapled to school bulletin boards are **talent discovery** essays.

However, in this era of high standards for all students, schools can't just discover talent in some students. They need to **develop** talent in all students. Twenty-first century schools are in the **talent development** business, where classroom instruction needs to be so effective and so efficient that virtually all students are able to be successful **because of** classroom instruction.

In **talent development** classrooms, there are essays from all students on the wall, and when we look closely, we see evidence of instruction in every essay. Students are successfully practicing something they were taught, not just relying on their innate writing ability. Depending on the year level and genre, we should see sensory details, consistent point of view, use of transition words and so forth. This is **talent development.**

The Teaching/Learning Dilemma: Speed Up and Slow Down

Teachers often tell us they feel trapped between two seemingly contradictory forces: (1) They're told to speed up to cover all the content standards, yet (2) they feel they should slow down to help their students grasp the concepts and skills in the standards. As a result, schools need an instructional approach where students learn quickly and then remember what they're taught.

The quest to develop an effective educational approach has been a driving force behind DataWORKS' research for the last ten years. We needed a highly effective and efficient teaching method. And the age of standards (and testing) has made this more important than ever.

Criteria for an Instructional Approach

It's not very often that a school staff sits down and really thinks about selecting or implementing any particular instructional approach in the classroom. We have found that teachers pick up various instructional practices over the years from university, staff development, conferences and personal experience. Once teachers lock into a teaching style, they generally stick to it day after day without thinking about it.

As DataWORKS spent more and more time investigating classroom instruction, we realised that we needed some overarching criteria for selecting an instructional approach. Here are DataWORKS' five guidelines:

Instructional Approach Guidelines

1. The instructional approach is effective (students learn) and efficient (students learn quickly).
2. The instructional approach is based on research, and the strategies can be used over and over again.
3. The lesson planning process is clear and well defined.
4. The lesson planning process is independent of year level, content and student's age.
5. The instructional approach produces a high percentage of successful students.

Now that we have established guidelines, how should we implement them? What approach should we use?

Two Philosophies About Education

There are many different approaches to classroom instruction, but typically they can be grouped into two broad philosophies. The first is **teacher-centred, direct instruction,** where the teacher decides what to teach, the objectives are clear and students are explicitly taught concepts and skills. Today, of course, the individual teacher no longer selects what to teach because we have state content standards that define and describe what students are to be taught in each year level.

The second educational philosophy is called **progressive.** There are different definitions of this approach, but in general, it is characterised by the teacher in the background while students determine what to learn by their own natural curiosity and desire to learn.