

Achieving a Full-school, Full-immersion Implementation of Direct Instruction

There is a **formula** for consistently transforming a lower-performing school into a much higher-performing school. Here's the formula: **Do what it takes to be accountable for maximum acceleration in the performance of all students.**

For a school to achieve this transformation, it will adopt new priorities, drop many of its current practices, change many details of the classroom interactions, build an infrastructure that works and can be maintained, and generally redefine its role so that the school serves as an advocate for the academic performance of the students. If the formula is followed, the result would be that every teacher in the school and the principal would be able to look every parent in the eye and say with honesty, "We've not only given your child our best shot; We have provided the best instruction possible."

Acceleration:

The formula refers to *acceleration*. Exactly what does that mean? Acceleration is simply teaching more in less time. There are different things that have to be in place if the school is to consistently accelerate students.

1. To achieve acceleration, the school must have a master instructional plan that encompasses all teachers in all grades. The instructional program must be coordinated from grade to grade, so that what occurs at one grade is coordinated with what goes on in the next grade. The acceleration would be stifled if some teachers followed a program that does not fit well into what students learned in earlier grades and what they are expected to do in the next grade.

2. Acceleration requires an instructional program that efficiently teaches what the students need for future applications. Careful attention must be given to the time-effectiveness of instructional details. Within each subject, there are procedures that teach things faster and those that teach it more slowly. The faster procedures have to do with the rate at which the program introduces new things, the amount of additional practice the program provides for everything that is taught, and the way in which those

things that are taught are applied. It teaches everything the students need, and nothing they don't need. It provides for rapid practice, many responses in a short period of time, continual, cumulative review of content, lots of applications of what is taught, and applications that don't require a lot of time and that are efficient. To meet this requirement, the school needs instructional programs that are effective— that work with the full range of students in the school, that provide for the initial teaching, the review, the applications, and that do so in a time-efficient way. If the program is able to teach in 10 minutes what another program is able to teach in 15, the program has the potential to accelerate student performance by 33%.

3. Acceleration is facilitated if each instructional group is organized homogeneously so that communication between teacher and student is very clear and productive. If the students don't understand what the teacher says, the amount that is taught is reduced. The communication is not clear. If the students have already been taught what the teacher is presenting, the teacher is communicating clearly, but not productively. During the time that the teacher presents, the students could have been taught things they weren't taught before. Because the goal is to accelerate performance of all students, all should be grouped in a context that permits the teaching to be referenced to their needs. In other words, students must be homogeneously grouped for instruction. Then the mistakes that one student makes are like the mistakes that others make, and the amount of practice that one student needs is similar to the amount needed by the other students.

4. To maximize acceleration, students must be appropriately placed in the instructional sequence. The appropriate place is where students tend to experience most of what is being presented as easy and sensible. The appropriate place is not at the edge of knowledge. This placement is unrealistic because it implies moving through the material so fast that the students are always on the edge of not understanding it. The appropriate place in the sequence is where students tend to make some mistakes but not too many, and where they are able to complete lessons at close to 100 percent mastery. If a lesson is completed in a specified period of time and the students show that they have complete mastery of the material covered in the lesson, the students are placed properly. If they always know the material before it is presented, they should be moved forward in the

program. If they stay at a place where the work is too easy for them, they will not tend to learn strategies for mastering new material. Also, they will not be accelerated as rapidly as they should be if the school is to achieve its goal of accelerating the performance of **all students**. If other students make too many mistakes, they should move back. In other words, the placement of the students is an ongoing process, and it is always referenced to the performance of the students. Also, if they are assigned homework, they should be able to perform perfectly if they are placed properly. So they receive practice outside of the classroom, and that practice is not punishing, but effectively reinforces what they have learned.

5. Acceleration requires schedules to be designed so they provide adequate daily practice in various subjects. Acceleration is possible only if students spend sufficient amounts of time on task. The at-risk student has a deficit of thousands of exposures on various language-related and thinking-related activities. If that difference is to be made up, adequate time must be available. If the school teaches students 40 things each day as opposed to 30 things each day, the school accelerates the daily performance of the students. If the school does not have a schedule that permits the teaching of 40 things per day, the daily acceleration will not occur. Therefore, the schools must have schedules that are smart in that they use time efficiently, and subjects of highest priority receive sufficient time and those of lower priority have less time.

Acceleration also demands a schedule that provides enough time for all instructional groups and that is coordinated from one classroom to another so that flexible grouping is possible for every student in every subject. A student may be in the top group in reading, but may be only a middle-group performer in math. If all the classrooms on a grade level teach math at the same time, the student may be placed appropriately. If the classrooms teach reading at the same time, the student may be placed appropriately. A good schedule doesn't merely provide enough time for the teaching of each subject. It provides the coordination that is needed for the appropriate placement of all students.

6. Acceleration assumes that students are taught to mastery. Mastery is magic if it is used properly. For any material introduced to be useful to the student, it must be

mastered. The student must know what it is and how to use it. If the student receives a lot of practice in learning new things to mastery, the student will develop techniques for learning new material that are efficient. The student's new-learning performance will be accelerated. Also, the more students master, the easier it is to teach new concepts of any kind because the students have a broader base of understanding. Therefore, the lines of access between teacher and students are broader. Second graders who read and perform in language at the fourth-grade level are much easier to teach than second graders who perform at the second-grade level. The faster students are accelerated in learning how to learn and learning how to use what they have learned, the greater the potential for future acceleration. Also, students who are accelerated in mastery are easier to teach, which means that the teacher doesn't have to work as hard or monitor as many details of their performance.

7. Acceleration requires a system for motivating students and making schoolwork very important to them. Part of the acceleration involves using practices that motivate students, that make them concerned about their performance in school, and that provide them with a self-image of a successful learner who can succeed in academic pursuits. Part of the acceleration occurs through instruction in which students learn that they do succeed and are therefore smart. Acceleration is greatly increased if students are motivated to learn and perform well. Teachers must be trained to tell students what they expect them to achieve and how to respond positively to their performance. Teachers must let students know the rules that enable a group to work hard and reach its goal. The broad rules include students working as a team and thinking about what they have learned even when not in school. If students think about what they are learning and apply what they learn outside of the classroom, they will learn more during a given period of time.

Both Acceleration and Accountability

1. A critical feature of both acceleration and accountability is identifying and solving problems in a timely manner so that students fully realize their potential. Because time is so important for achieving acceleration, schools must be accountable for identifying and solving problems quickly. We can't wait until next year to solve problems that students are encountering this year. In fact, if we are committed

advocates, we can't wait until next month to solve problems that seriously jeopardize what students are learning. The range of problems extends from those that one student in one classroom is experiencing, to those that may affect the entire school. Although there is more than one category of problems, the ones that require attention are those that are either resulting in less-than-adequate progress from students or those that will certainly result in less-than-adequate progress unless they are solved or obviated now. If teachers are not teaching certain math or reading skills in a way that students will use them later, there may be no apparent problem with student performance observed now. However, the problem will be very apparent when the students reach the point of the program that calls for the application of the procedure that is not being taught properly. Therefore, the problem must be identified and solved now or the students will progress not only at a less-than-adequate rate, but at a rate that hampers acceleration.

2. To be accountable for identifying and solving problems that prevent acceleration of student performance, the system must have data — both on the performance of every student and on the performance of every teacher. The data should be designed so that it is possible to see whether our expectations of student performance are realized, and if not, why not. Data in the form of records of progress through the program and data on how the students perform on in-program tests alert us to a large range of possible problems.

The progress that students in a particular instructional group make is referenced to a projection about the lesson progress the group is expected to make if all the instructional and motivational details are in place. The lesson-progress performance is confirmed by the students' performance on in-program tests. If students do not pass in-program tests, there may be a problem with the way the teacher is presenting the material or the way the students' behavior is checked. The data in other words, lets us know what kind of additional data we need. We need observational data on what is happening in particular classrooms during particular periods. We need to know if the teacher is using the scheduled time to teach the subject, presenting in a way that is clear to the students, correcting mistakes, reinforcing students who perform well, and holding students to a high level of expected performance.

Teachers who have and use data on student performance and its relationship to the teaching that has been provided are able to identify problems and solve them more readily than teachers who do not have such data. For this reason, it is important to teach teachers something about how to use "process data" to adjust what and how they are teaching, how the students are grouped and placed, and how fast they are moving through the instructional sequence. Process data is a record of specifically what the teacher did and specifically how the students responded and which students did not respond correctly. The record shows the rate at which material was presented, and it shows the percentage of students who did not need corrections. The combination of this information gives the teacher a precise map evaluation of the teaching and a precise indication of at least certain details of the teaching that must change to solve the performance problem.

The bottom line for the use of all data is that it has a function. We must identify problems before we can design effective remedies. The better we are identifying problems, the more quickly and precisely we identify and carry out the remedies. The data provides us with the information needed to identify and solve problems. When all problems in the school are solved, the school is outstanding in all aspects of accelerating performance.

Accountability:

The formula that the totally responsive school adopts refers to accountability. Accountability is something like the flip side of acceleration—accountability encompasses the responsibilities necessary to achieve the acceleration goals. Acceleration cannot be achieved unless the system that causes the acceleration is carefully laid in place and maintained.

1. *Accountability begins with the participation of the entire school staff—no exceptions.* If this union does not occur, then it is difficult to say who is responsible for what, or how the efforts of one individual are to be related to those of another. For instance, if a second grade has mastery instruction in some classrooms, but not all, some third grade teachers are going to receive students who are at an accelerated level; others will receive students who had not been accelerated in the second grade, or who had not learned the skills they will be required to use in the third grade. This arrangement won't work. Ultimately it will cause the entire school to slip to the point of being mediocre. If all

teachers work together, not necessarily as a team, but as a coordinated unit, then it is possible to have clear expectations for the acceleration of all students.

2. *The next facet of accountability is that of maximizing the teaching potential of the school.* Training is implied. We can't assume that all the teachers know what they should do to be effective. We therefore need some procedures that maximize the potential of these teachers. The training should be thorough enough so that teachers acquire the skills they need. It should meet the same requirements that we hold for the teaching of students. The teachers must achieve mastery in using effective techniques for presenting the material, for correcting mistakes, for motivating the students, and for assuring that students apply everything they have learned to projects and to independent work. The amount of training that is necessary is the amount that is needed in a particular instance to train all the teachers so they are able to teach all of their students effectively. For some teachers, the training will be much more elaborate and precise than it is for others. But just as the program teaches all students, its goal is to teach all teachers.

Because it is important for new teachers to be somewhat proficient with the teaching techniques and conventions that they are expected to execute, preservice is critical. Furthermore, the focus should be on the teachers' understanding of what they will be doing in the classroom and why.

Because not everything can be effectively taught without the presence of students, both first-year teachers as well as those who are not new to the program require additional teaching — inservice training and in-class coaching. The assumption of both these formats is that they will teach the teachers additional skills that will make it possible for them to effectively teach subjects and students that they formerly could not teach effectively. The focus of preservice should be on solutions to problems the teachers are having and solutions to problems they may have in the upcoming lessons. The focus of in-class coaching is to provide additional help and support and to assure that the teacher is using the skills that have been taught.

3. *The school must be accountable for installing a system that motivates students and influences their priorities.* The system specifies schoolwide and classroom functions that celebrate the academic achievement of the students. The school provides

each student with information that their academic achievements are celebrated as vigorously as the school celebrates good performance on an athletic field. Students need to know that their school is best in achievement. The students are the smartest. And the school has a serious work ethic that provides all students with the payoff of being able to show off just how smart they really are.

The system provides regular opportunities for students to show off what they have learned. The system further provides students with indicators of their progress-- ongoing information that they are learning important material at a faster-than-anticipated rate. This information is conveyed through challenges on specific knowledge, the use of celebrations for academic achievement, procedures that allow students to have high expectations of their performance, procedures for students to show off how well they are learning new material, and procedures students use to interpret their performance in the classroom and its relationship to how smart they are becoming. The tools that are necessary to implement this system include ways of measuring the progress of each instructional group in each subject, and procedures for informing students about the academic accomplishments of classrooms, groups, and individual students. For teachers to become effective in executing this system, they need training: 1) in how to respond to the progress of the students in the various instructional programs; 2) in how to teach students general classroom and school-wide rules; 3) in how to provide reinforcement for following schoolwide rules.

4. *The school must be accountable for inducing behaviors beyond the classroom that facilitate learning and cooperation.* Students learn from models in the school. How do students behave toward each other? How do they behave in the cafeteria? How do they behave on field trips? How much pride do they have in their school? These questions are addressed by establishing schoolwide routines that promote positive models for any student and that provide a basis for students being proud of their school. The school must have schoolwide rules for students interacting with others (such as no name-calling) and for behavior in different parts of the school.

The school must establish training procedures so that teachers know how to respond to different behavior-related problems and how to use the resources available within the

school for solving those problems. Specifically, there have to be provisions for monitoring the student behavior on the playground, in the cafeteria and in the classroom. The school may need provisions for addressing problems that result because teachers are not facile at dealing with behavior problems or because they are confronted with serious non-compliance. The school may need a time-out system that effectively changes non-compliant behavior. Some members of the staff must become well versed in the specific procedures that are to follow to assure success. In addition to training solutions, the school may have to change the setting details of some classrooms to create an orderly, positive atmosphere. This may involve reassigning teachers or reorganizing instructional groups.

5. *Accountability implies that the school's priorities are reflected in the school's budget.* Some things are more important than others. Often a choice must be made because there is not sufficient money for doing everything. This situation is parallel to that of the instructional arena. It would be nice if the school schedule had sufficient time to teach everything we would like to teach, and to provide students with every experience we would like them to have. We must make choices in the instructional arena that are based on our commitment to accelerate the academic performance of all students. The same commitment requires us to use funds that will most likely or to the greatest extent increase the academic performance of all students. The choices require us to consider the benefits that we will receive if we commit money to different plans. If the choice is between something like providing additional aides to teach language in the kindergarten or buying supplemental materials for the fourth and fifth grade science programs, the science material would be rejected because it is possible to teach the students everything they need to know without this material. It may not be possible to accelerate the performance of the kindergarten students without the additional teaching capacity.

6. *Accountability implies maintaining a high fidelity of implementation over time.* This fidelity is observed by the stability of the various problem-identification and problem-solving procedures over time. The procedures that the school uses must be institutionalized, so that they endure as personnel change and as the school's performance improves. Good performance does not mean that we abandon those practices that brought about the good performance. Rather, good performance is the affirmation that the processes must be continued and must become part of the school's fabric. Likewise, the

training that led to teachers being effective and able to accelerate performance of students is the training that future teachers need. The procedures for maintaining the school at a high level is a lot easier than it is to achieve the high level in the first place. But unless the school has completely institutionalized procedures for training teachers, providing in-class coaching, monitoring the performance of teachers and students, and using data to identify and solve problems, the school will fail in its commitment to be accountable to all students.

The fidelity of the implementation is revealed through data and stability in the high performance of students. It is also observed in teacher-performance records, showing that teachers follow the schedule, execute the details of the program correctly and make efficient use of time. Just as a high-fidelity implementation requires procedures for maintaining the school at a high level, it needs procedures for evaluating the details of the implementation and the results it is achieving.