

First Things First: Ensuring High-Quality Instruction for All Learners

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Key educational policies like No Child Left Behind (NCLB, 2001) and Individuals with Disabilities Act (IDEA, 2004) highlight the importance of meeting students' diverse learning needs through the provisions of high quality, research-based instruction and frequent progress monitoring. As the fields of education and school psychology continue to conceptualize this in day-to-day practice, *The Ohio School Psychologist* includes the second article of a two-part series. The first article featured a discussion that explored ways to determine the effectiveness of instruction and how school psychologists can contribute to determining levels of high-quality and effectiveness. This article will begin to explore the answers to related questions being asked by educators and school psychologists as we reflect on the type of teaching and learning that occurs in everyday American classrooms, such as "What does high-quality instruction look like?" "How do we address diverse learning styles through instruction?" and "How does one ensure educational integrity to all children?"

Why high-quality instruction matters to school psychologists

With the passage of NCLB and IDEA 2004, we have witnessed the role and function of the school psychologist move beyond the traditional eligibility assessor to an instructional consultant for teachers and administrators. In order to operate more effectively in this evolving role, school psychologists should refine their understanding of how the school district, building, and individual classrooms must operate as part of an organized system whose sole purpose is to ensure high levels of learning for all students. Although we may serve as an ancillary support in some of these efforts, it is critical to recognize when good instruction is happening and when we can support educators to enhance their classroom strategies.

Our change in role and function should come with understanding that we have a state accountability system that tracks student achievement *and* progress, but the mere existence of this accountability system doesn't, in and by itself, ensure higher levels of student learning.

Rather, in good company with every other stakeholder, we should be fluent in what the research says works within schools and individual classrooms. Case in point—if the best student intervention is high-quality instruction guided by student progress monitoring systems, then the modern day school psychologist should understand what an effective classroom looks like. Furthermore, possessing this knowledge is consistent with the latest *School Psychology: A Blueprint for Training and Practice* (2006) recommendation that we should continue to build our competencies in consulting with teachers in an effort to establish and sustain effective learning environments.

Present educational accountability systems

Our current educational system can be characterized by terms such as “high-stakes,” “adequate yearly progress,” and “accountability.” Critics argue that an educational accountability system that tends to set an arbitrary line of student achievement does not always take into account the variations of the group of students within the system prior to the measurement of such achievement. In short, there are many important factors that affect the achievement levels of students that are beyond the control of the school (Guthrie, 2005). Student composition variables such as prior achievement, gender, ethnicity, socio-economic status, language background and special education status have been cited by other researchers as factors that are not within the control of the school, but do account for student achievement variance among groups (Muthen, Huang, Jo, Khoo, Goff, Novak & Shih, 1995; Sammons, Nuttall, Cuttance & Thomas, 1995). Conversely, there is research to show that despite some of these factors, students can still achieve at high levels if variables such as effective teachers, principal leaders, research-based instructional strategies, and formative assessments are present (Black & Williams, 1998; Heck, 2000; Reeves, 2000; Sanders & Horn, 1998).

Essential to high-quality instruction: Teacher effectiveness

Research conducted over the past 20 years by Dr. William Sanders and his colleagues has shed great light on the effects teachers have on student growth (Sanders, 2000; Sanders, 2006; Sanders & Horn, 1998; Sanders & Rivers, 1996; Sanders, Saxton & Horn, 1997). Also known as value-added assessments, Sanders and Horn (1998) randomly assigned students from various socio-economical and racial backgrounds in 79 schools across the state of Tennessee. They found that student performance was substantially influenced by the effectiveness of the teacher—even before socio-economical class and ethnicity. How do they explain the variance between students when academic growth is considered? Based on their research, the quality of instruction by the teacher explained the most variance (65%) followed by the quality of the individual school within a district (30%) followed by district itself (5%). From this we know teachers add value as does the school and district to which a student belongs; however, teacher effectiveness was the most salient factor impacting the academic progress of students and it was most pronounced in mathematics (Sanders, 2004). A second important finding to their study was the impact of teacher effectiveness on student achievement seemed to accumulate over years. For example, fifth grade students who had three consecutive highly effective teachers scored between 52 and 54 points higher than students who had low-effective teachers, although the students’ math achievement scores were the same three years prior in second grade.

Darling-Hammond (2000) hailed the efforts of Sanders and Horn, but sought to take the research one step further by examining *which* teacher qualifications related to student achievement (distinguishable from student progress as measured by Sanders). She found even after controlling for poverty and language background of students, the largest predictor of student achievement was teachers' receiving training in content areas they taught and holding full licensure/certification. Monk (1994) came to this same conclusion, yet emphasized that taking courses in instructional strategies for the specific content areas lead to increases in student achievement. That is, good teaching doesn't happen just by what teachers know, but rather, what they do (Monk).

What works and what does it look like?

Schacter and Thum (2003) concurred that teachers make a difference in student achievement, yet they challenge the field by stating specific teaching characteristics need to be defined, observed in practice, and the engagement of these measured to determine student achievement gains. As a beginning to this laudable research agenda, Heck (2000) described schools rated as having "higher quality educational environments" as comprised of teachers who had classroom environments that dedicate more class time to instruction, have high levels of student engagement and implement individualized interventions when needed. These teachers also provided challenging school work and were more transparent in their communication of the learning outcomes to both the students and their parents, which also promoted more frequent and positive home-school collaboration. Also important, these schools had a principal leader who was supportive and directed his or her school towards instructional excellence and improvement.

Research has established the standard that high-quality teachers and high quality leadership add value to student growth. Within the field of education we also have an abundance of research about assessment and instructional strategies that work. With regard to assessment, we know that when teachers provide quality, formative feedback to students it has a profound effect on their learning (Black & William, 1998). This is due to the inherent features of formative assessments, as they provide clear learning targets and instill a reflective process for the student about their progress as opposed to simply calculating points for a grade (Bangert-Drowns, Kulick & Kulik, 1991; Black, Harrison, Lee, Marshall, & William, 2004; Chappuis, 2009; Hattie, 1992; Hattie & Timperley, 2007; Fuchs & Fuchs, 1986; Kluger & DeNisi, 1996, Marzano, 2006; Stiggins, Arter, Chappuis & Chappuis, 2004). Another major benefit to formative assessments is the more frequent they occur, the greater the student achievement (Marzano, 2007). Formative assessment is certainly a major contributor to positive student outcomes, but the instruction that occurs concurrently with this process must also promote an upward trajectory of learning.

In their book titled *Classroom Instruction that Works* (2001), Marzano, Pickering, & Pollock look more closely in the classroom to see what works. They outline nine research-based instructional categories that foster significant student achievement which include: identifying similarities and differences ($ES=1.61$); summarizing and note-taking ($ES=1.00$); reinforcing effort and providing recognition ($ES=.80$); homework and practice ($ES=.77$); nonlinguistic representations ($ES=.75$); cooperative learning ($ES=.73$); setting objectives and providing feedback ($ES=.61$); generating and testing hypotheses ($ES=.61$), and questions, cues and advanced organizers ($ES=.59$). They devote a chapter to each of these strategies through descriptive and visual illustrations to aid implementation while also providing suggestions on

how to reach diverse learners. Although these do not specifically unpack characteristics of the “person in the teacher,” their implementation promotes positive student gains. In more recent work by Marzano (2009) the author cautions practitioners as to the exclusive use of the nine instructional strategies contained in this work. Specifically, while Marzano (2009) indicates that the nine strategies are a good place to start, educators should not narrow their focus to only these nine. Further, teachers shouldn’t assume that these nine strategies should be used in every classroom and that they will always work. Marzano advises that educators should develop a language of instruction for the district and this language should be used to formatively evaluate practice. In what might be the largest meta-analysis study in existence, Hattie (2009) synthesis over 800 meta-analyses related to student achievement and provides effective sizes for each. Hattie (2009) separates the effect of a variety of different variables and provides a specific review on each. Included are contributions from the student, home, school, teacher, curricula and teaching approaches. To that end, as school psychologists continue to build an inventory of research-based classroom strategies to endorse during instructional consulting, these seem worthy of consideration. In addition to this resource, Marzano also hosts a variety of books related to improving student achievement that can be found at www.ascd.org.

Considerations when selecting reading and math curriculum

Given that teacher quality differences explained the largest variation in reading and math achievement (Darling-Hammond, 2000; Monk, 1994; Sanders, 2004), the findings of the National Reading Panel and Mathematics Advisory Panel can guide which curricular and instructional strategies are most advantageous for promoting student achievement. Louisa Moats (1999) articulated that teaching reading is a complex science that needs to be delivered by experts in reading. While providing thorough pre-service training of teachers in reading theory and instruction will increase the likelihood of high quality reading instruction in the schools in the future, Moats also stressed the importance of giving them the proper tools to effectively deliver the instruction. The demands of the phonologic, alphabetic, semantic, and syntactic systems of written language require a careful schedule and sequence of prioritized objectives, explicit strategies, and scaffolds that support students’ initial learning and transfer of knowledge and skills to other contexts. The requirements of curriculum construction and instructional design that effectively move children through the “learning to read” stage to the “reading to learn” stage are simply *too important to leave to the judgment of individuals* (Simmons & Kame’enui, 2006).

Due to federal mandates like NCLB and IDEA 2004, school districts are now held to higher standards when evaluating and choosing their core instructional materials. Fortunately, in the area of reading instruction, there is a large body of research which has contributed to the merging of the art of teaching and the science of reading. In 2000, the National Reading Panel released its findings after a comprehensive review of previous research on reading. This expert panel determined five crucial skills needed for reading development: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Although the report gives specific recommendations in all five areas, it shares a common theme that these skills need to be *taught explicitly to students*. Choosing a core instructional programs that covers all five areas of reading instruction is the first step in choosing core program that is aligned with the research. The Florida Center for Reading Research (FCRR) website is a valuable resource for comparing the various core curriculum programs available for purchase. It rates each core curriculum

series, as to the extent that these five areas are explicitly included in the programs. In addition, both the FCRR and the Oregon Reading First Centers website provide comprehensive evaluative checklists for core curriculum to aid districts in doing self reviews of their current program or those they are considering for purchase.

Although several years behind reading, mathematics instruction is now following the same path with a comprehensive literature review that will guide instructional practices. In 2006, President George W. Bush created the National Mathematics Advisory Panel (NMAP), which was charged with the same task as the National Reading Panel—to review the best available scientific evidence on mathematics and make recommendations for improving math instruction. In March of 2008, the NMAP released, *Foundations for Success: The Final Report of the National Mathematics Advisory Panel*. The report featured content specific themes, such as critical foundations, conceptual understanding, automaticity and the contributions of fractions and algebra concepts to math development. The report also offers evidence on the delivery of math instruction, which includes topics such as teacher quality and effectiveness, use of formative assessment practices, and the need for explicit instruction. Although relatively new, this document will lay the groundwork for developing evidence-based instruction for math, much in the way that the National Reading Panel Report has done.

Making it Happen: Practical Applications of High-Quality Instruction

As educators strive to provide high-quality instruction, it is essential to implement this in a manner that meets diverse learning styles. Captured appropriately by Tomlinson (2001), educators must strive to differentiate instruction based on student need in order to maximize the capacity of learning for all student abilities. Differentiated instruction is “a flexible approach to teaching in which the teacher plans and carries out varied approaches to content, process, and product in anticipation of and in response to student differences in readiness, interests, and learning needs” (p. 10). This may seem like a complicated undertaking, yet Tomlinson’s (2001) book, *How to Differentiate Instruction in Mixed-Ability Classrooms*, serves as a helpful resource to guide this in daily practice.

To further assist in our endeavors to reach every learner, we can turn to the work of the Curry/Samara Model (2008) and the MAX Teaching Model by Forget (2008). Both models embrace the views that we must have a sundry of ways to differentiate our instruction. The Curry/Samara Model is based on the premise that in order to reach diverse learners, we must provide multiple and various opportunities for students to represent, express and engage in what they learn and know, while teaching them ways to reflect and assess their learning process. They propose that this is achieved through the coordination of six categories of effective instructional strategies in which teachers become skilled: *content* (i.e., strategies to help students learn subject matter), *thinking* (i.e., strategies that help students think more effectively), *product* (i.e., strategies that help students produce products that capture what they know), *assessment* (i.e., strategies that help students assess their own work), *facilitation* (i.e., strategies that improve student engagement), and *reflection* (i.e., strategies that help students reflect on their newly acquired knowledge). Over the last ten years, this model has been implemented in diverse school environments across the country. It has been validated to promote significant gains in student achievement and the most salient factor they cite is staff development in these key instructional strategies. The Curriculum Project (www.curriculumproject.com) is the host to the *Model Classroom Project*, which provides professional development on the Curry/Samara Model through study groups, modeling of strategies and classroom visitations with vignettes.

Dr. Mark Forget, based in Ohio, has established a team of colleagues who provide professional development to elementary through high school teachers through workshops and modeling of research-based classroom strategies for the areas of mathematics, language arts, health, social studies, foreign language, science and career-technical classes. The strategies help teachers become skilled in reaching diverse learners by improving literacy skills, increasing student engagement and truly learning the subject matter. Contained within the acronym “MAX,” *Motivation, Acquisition, and eXtension* are considered the three main elements of the teaching framework. Through individual and cooperative learning activities, the teachers learn about instructional strategies designed to increase student motivation, acquisition of content knowledge and extension of newly acquired information to across subject areas, settings and groups of students. Some examples of instructional strategies endorsed and validated in the MAX Forget Model include anticipation guides, what-I-know-sheets (e.g., KWL sheets), pre-post concept assessments, and the thinking cube (Forget, 2008). More information is available at www.maxforget.com.

Keeping high-quality instruction intact once it has been obtained

Once a school district has committed to an instructional program, the teaching staff is often provided training in the proper implementation of the program. This training is a first step in ensuring the instructional integrity of the program. Instructional integrity (sometimes referred to as “fidelity”) is the delivery of the instruction in the way in which it was designed to be delivered (Gresham, McMillan, Beebe-Frankenberger, & Bocian, 2000). In response to the passage of NCLB (2002), as well as the recommendations of the National Reading Panel (2000), core reading programs on the market today are typically backed with evidence of their effectiveness (Florida Center for Reading Research, 2006), so the need to implement the program as it was designed is critical to reproducing the same positive results in the classroom.

Although treatment integrity procedures are routinely featured in Response to Intervention (RtI) models, much of the emphasis is placed on monitoring interventions at Tiers 2 and 3. The foundation in a successful RtI model is high quality universal instruction; however, procedures for implementing this level of instruction with integrity are not clearly defined in the literature. Instructional integrity at the core curriculum level is important for several reasons. Gresham, Gansle, & Noell (1993) demonstrated that importance in a meta-analysis study which found significant, moderate correlations between the level of integrity and treatment effect produced. In other words, the more the program was implemented as it was designed, the better the result. Another reason instructional integrity is needed, particularly in an RtI model, pertains to the ability to make valid decisions that are dependent on the assumption that a child has received good, high quality instruction. When making both low level and high stakes decisions about a student’s instructional program or disability status, it is crucial to have evidence that the student received high quality instruction that was implemented with integrity.

Developing a system for integrity monitoring at the core level of instruction requires the consideration of many factors pertaining to the construction of the integrity tools, as well as the practicalities and logistics for managing a large scale program. The process of observing for integrity is not as simple as observing if the instructional steps are being followed by the teacher. In fact, there are multiple constructs to consider when observing for integrity. Dane and Schneider (1998) have identified five distinct dimensions of integrity: adherence, exposure, quality of delivery, participant responsiveness and program differentiation (described more

comprehensively in their article). These constructs measure both the quantitative (content of the program) and qualitative (process of the delivery) aspects of the instruction (Resnicow et al., 1998).

In the schools, universal instruction is implemented by the greatest majority of teachers and for the longest period of time, compared to Tier 2 and Tier 3 intervention programs. These factors make the practicalities for implementing a Tier 1 integrity system more challenging than the other tiers. There are several factors to consider when devising a comprehensive integrity system for the universal curriculum. The National Research Center on Learning Disabilities (2006) has conceptualized an approach which has three dimensions to consider:

1. What type of method or tools will be utilized to gather the integrity data?
2. How often the integrity checks will be conducted and what are the factors that suggest how often they are required?
3. What support systems are in place to allocate personnel to conduct checks, provide feedback and professional development opportunities to staff in order to address integrity compliance issues?

When introducing new concepts and ideas to a school system, it has been demonstrated that lasting changes are more likely when developed through a collaborative effort between administrators and teachers (Fullan, 2007). Although a hierarchical approach to assessing integrity has its advantages in structured research settings or when participants are highly invested in a program, in naturalistic environments, such as schools, the model fails to include the perceptions and beliefs of the service providers, as well as the engagement of the learners (Powers et al., 2006). Designing an integrity monitoring system, with an emphasis on a partnership between the individual implementing the intervention and integrity monitor, may help to improve treatment acceptability and adherence, as well as student responsiveness to the instruction. Powers et al. (2006) offered a framework for developing an integrity system in which both the integrity monitors and teaching staff determine what is monitored via the use of multiple informants (monitors, teachers, students) and multiple methods (direct observation, rating scales). This model provides a balance between intervention adherence, quality of delivery, and how well it is received by the student participants. In Ohio, educators have been involved with a similar process called the Ohio Improvement Process. It utilizes leadership team structures at all levels of the system in order to sustain improvement through collaboration and redefining leadership and narrowing the focus of the system (Lloyd, McNulty & Telfer, 2009).

There are also many strategies that both directly and indirectly increase the likelihood that instruction will be implemented as it was designed. These strategies can be grouped into three domains: professional supports, structural components and feedback systems. It is not only important to provide the implementers initial training in the core program, but it is also beneficial to provide opportunities for collaboration and support during implementation. This support could be offered in a variety of forms such as: instructional coaches, reflective dialogues with administrators, professional learning communities, collaborative teaming, or just as simple as permitting teachers to observe other teachers in their buildings. Examples of structural components that can increase integrity are: the presence of a clearly-defined instructional block and supplying checklists that articulate expectations and encourage self-assessment. The Florida Center for Reading Research website (www.fcrr.org) has Reading Checklists for grades K-5 that focus on the essential reading components as defined in the National Reading Panel. These checklists could be a starting framework to customize a teacher self-assessment checklist or a third party observation form for conducting integrity checks in the core curriculum. Feedback

or assessment systems can also indirectly increase integrity. For instance, the use of common assessments across a district provides a uniform time schedule or pacing for the delivery of instruction. The feedback obtained from common assessments, as well as formative assessment data, indirectly increases the likelihood of the integrity of the instruction.

Another alternative method for assuring instructional integrity at Tier 1 is the use of a Walk-Through model. Walk-Throughs are similar to the business model, Management-By Walking-Around (MBWA) which was developed by Hewlett –Packard executives in the 1970's, in order for executives to have more of a hands-on style of management with their company (Trueman, 1991). Research by Lezotte and the Effective Schools project (Lezotte, 1991) found that a crucial variable found in effective schools was the building principal assuming the role of “instructional leader.” Walk-Through procedures are effective tools that facilitate principals becoming hands-on actively engaged participants in the learning community in their schools.

Walk Through models generally consist of two components: brief, frequent observations and reflective inquiry between the observer and the instructor. One popular framework is the Downey Walk-Through model (Downey, Steffy, English, Frase, & Poston, 2004), which features brief (only 3-4 minutes) and focused informal observations conducted on a frequent basis over time. The focus of observations center around five areas: student engagement (are the students attending to the instruction?), curriculum (what is the learning objective and is it aligned with the content standards?), instruction (what instructional strategies are being use to convey the instruction?), walking the walls (a search of visual permanent products such as portfolios, bulletin boards, etc., that convey past objectives taught), and safety and health issues (are there any noticeable safety or health issues that need to be addressed?).

After a series of brief observations, the administrator and teacher meet for a follow up conversation, referred to as “reflective dialogues.” These dialogues are designed to be non-evaluative with the purpose of assisting teachers to engage in reflective inquiry about their teaching practices through the use of open ended questioning. The results of the observations generate a dialogue, which is facilitated by a structured framework in the Downey model. The goal of the Downey Walk-Through model is to empower educators to become reflective teachers, who will be responsible for their own professional growth by continuously analyzing their teaching practice.

Conclusion

As a result of the No Child Left Behind Act (2002) and the Individual with Disabilities Education Act (2004), schools districts are now held to higher standards when selecting and evaluating their core instructional materials. Instruction should be research-based and matched to student need, learning targets must be identified, student progress monitored frequently, and implementation of the curriculum done so with integrity. If school psychologists are going to be an important contributor to these endeavors, it is vital that they have a firm understanding of what adds value to student learning and what high quality instruction looks like in this process. When school psychologists are well-versed in what works then they can assist educators in establishing and sustaining exceptional learning environments. In the end, it is important that school psychologists “get it right the first time” and implement and monitor the things that they already know are effective. As education changes, broad training in school psychology allows practitioners to become a chameleon for educational reform. As such, school psychologists must

build, adjust, and apply their skills based on the needs of the school district in which they work—just as they expect teachers to do the same for the students in their classrooms.

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