

8. Has the methodology for my child been “peer-reviewed” and validated to work?
9. Are all the teachers and paraeducators assigned to teach my child highly qualified according to State standards?
10. Do they have expertise/training in the approach designated by the IEP team? If not, how will the approaches be provided?

It is important to remember that not all strategies and materials will have a scientific base. If the IEP team recommends such strategies and/or materials, the results should be evaluated on a frequent basis to ensure they are working for your child.

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Research-Based Interventions and Practices in Special Education:

A Parent’s Guide for Understanding



Information and Questions to Ask at IEP Team Meetings 2005

Possible Questions to ask at the Individualized Education Program (IEP) Meeting

When you visit your doctor and he/she recommends a certain therapy, intervention, and/or medication, we often ask the doctor questions about the prognosis, side-effects, and success rate for the prescribed program. It is all right and appropriate to ask questions at the IEP Team Meeting regarding the research base of the program being suggested. The following is a list of possible questions:

Top 10 Questions

1. Is my child's reading program based on solid research regarding how children learn to read?
2. Are the IEP goals connected or aligned with the general education curriculum?
3. There are interventions listed on my child's IEP (supplementary aids and services). Have these interventions been proven to work?
4. If the methods do not work for my child, will the school try other strategies?
5. Are the interventions and strategies based on his/her strengths, interests, and learning style?
6. Explain the materials and strategies the school will use to instruct my child and if they have a research base.
7. How do I as a parent know that scientifically based approaches/materials are being implemented?

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teach what they contend is professionally correct in their experience.

Even for those special education teachers who are convinced one curriculum approach is superior to another, for a child with a disability, there is no guarantee the teacher will follow the curriculum or educational strategy as exactly as it has been prescribed. There is a great possibility changes will be injected into the learning program that reflect the teachers personal educational experience and consequently, other “more customized” training may become part of a student’s educational program. Teaching students with disabilities is by no means a perfect science, and there are no guarantees children will experience successful outcomes with their special education program. One thing parents and educators can do, however, is continually strive to ensure the curriculum materials, strategies, and interventions used for their students are as evidenced-based as possible and ensure practitioners implement those programs as they are designed.

Introduction

Imagine yourself involved in an Individualized Education Program (IEP) meeting for your child who has been determined to have a disability requiring special education. The IEP team members who have participated in the discussion of your child’s disability and made the recommendations for a specially designed instruction program have all acted very professionally and appear to have considerable knowledge concerning appropriate teaching strategies, interventions, and curriculum materials that would best meet your child’s special learning needs. You have a sense of relief that after many months of observing your child come home from school unhappy and frustrated, because of the repeated experience of failure, a prescription for success has finally been discovered.

After leaving the IEP or planning meeting, the thought occurs to you:

“How can the IEP team be so sure these teaching interventions and strategies and this specific educational program will, in fact, work for my child?”

“Does the school have evidence the programs they are advocating for my child are based on solid scientific research or have been validated through review by the State or federal Department of Education?”

Had you made these inquiries during the IEP meeting, the response you might have received would be this: “The special education program recommended for your child has worked for most of our students, and that’s why we use it,” or “Our teachers have training experience with this approach.”

Recent federal educational laws and regulations have required schools go beyond traditional approaches and historical practice or “best guess” regarding educational interventions and programs that work.

These federal initiatives have been developed for the purpose of basing the validity of educational practices on something other than “I think,” or “I believe.” That “something” is the use of scientifically based or validated curriculum materials, strategies, and interventions.

Background and Purpose

The No Child Left Behind Act (NCLBA) was designed primarily to ensure educational accountability through schools producing positive results or outcomes for educational efforts.

Such high standards present significant challenges for educators attempting to provide evidence-based educational programs for students with disabilities.

reinforcing concepts using one or more avenues of the child’s senses.

Cooperative Learning is a technique where all children are involved in a group activity at their academic and social level.

Direct instruction, which is an excellent vehicle for drill and practice, generously uses breaking down learning tasks in small sequential steps and taking them to mastery.

Special Educators and Interventions for Students with Disabilities

It is important for professionals to provide a thorough and comprehensive evaluation of a child’s strengths and weaknesses in learning. That diagnosis becomes the blueprint for instruction and largely determines the research-based instructional strategy, curriculum, and any interventions that will provide the best opportunity for the student with a disability to learn successfully.

There are considerable differences between and among special education teachers and administrators regarding specialized teaching materials and approaches. All teacher training programs in universities and colleges don’t offer the exact same preparation programs. They have specific biases about interventions necessary for some students with disabilities depending on their own training, and they

Examples of Special Education Interventions

Some special education interventions that have been developed that have been validated with experimental research investigations. Listed below are a few examples.

1. Task analysis
2. Behavioral analysis
3. Multi-sensory instruction
4. Cooperative Learning
5. Direct Instruction

Task Analysis involves a process of breaking down a behavior or task, such as the self-help skills of dressing or bathing, into specific steps and teaching them to a child in a sequence one at a time until mastery is achieved.

The **Behavior and Environmental Analysis** strategy is effective in special education in that its basic components are precisely defining the targeted student behavior to be changed, applying an intervention to observe a response change, and continually altering the conditions affecting the student both before and after the response occurs. Accurate data are recorded, and these data determine the success or failure of the intervention.

The **Multi-sensory** strategy is sometimes referred to teaching through V-A-K-T or the combined use of Visual, Auditory, Kinesthesia, and Tactile senses. This involves

A major theme within NCLBA was for schools to use curriculum program materials and interventions that have been scientifically proven to achieve high standards of success for all students, including students with disabilities.

With this policy change, a need exists to provide parents information that describes the evidence-basis for curriculum materials and interventions that are being used in special education programs and answer questions that parents should ask at their child's IEP meeting about educational interventions and strategies.

Defining Scientifically-based or Evidence-based Instruction

The field of special education contains a vast array of educational interventions that claim to improve outcomes and, in many cases, are not supported by evidence and scientific investigation.

Many companies that produce educational programs introduce new interventions with great fanfare, claiming they are able to produce dramatic educational gains for students with disabilities, yet many interventions have not received close analysis of effectiveness by research and yield little in the ways of positive and lasting student achievement.

“Proven practices” is a concept that is open to interpretation as there are various degrees of proof that range from scientific rigorous investigation for a given intervention to observations concluding effectiveness through historical and traditional practice and sometimes a collection of anecdotal data. These degrees or standards of proof have been made more clear to school officials with the recent U.S. Department of Education, December 2003, document titled, *Identifying and Implementing Educational Practices Supported by Rigorous Evidence: A User-friendly Guide*. You can find this guide at this Web address: <http://www.ed.gov/rschstat/research/pubs/rigorousevid/index.html>

Special education is a comparatively new field in which practitioners have developed many educational practices, strategies, curricula, and programs supported through demonstration projects; these bases of evidence for evaluating interventions must also be considered as indications of effectiveness.

Below is an explanation of scientifically based research in education:

The term “scientifically based research” means research that—

1. Employs systematic, **empirical methods** that draw on observations or experiment.

2. Involves **rigorous data analyses** that are adequate to test the stated hypotheses and justify the general conclusions drawn.
3. Relies on measurements or observational methods that provide **valid data across evaluators** and observers and across multiple measurements and observations.
4. Has been accepted by a **peer-reviewed** journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review.

If students with disabilities are to achieve at high standards, we cannot afford the luxury of guessing or speculating about which interventions might work for them to achieve successful outcomes.

Special education interventions should be reviewed and evaluated according to rigorous research. A parallel analogy is the heart surgeon whose knowledge and skill to perform triple by-pass surgery has no room for guess work or saying “maybe this will work.” It must be done right the first time, and “getting it done right” requires rigorous application of scientifically based procedures.

We can’t afford to perform educational interventions with students that don’t produce predictable and reliable educational outcomes.