

Remediation vs. compensation: A critical decision point in assistive technology consideration

An Essay by Dave L. Edyburn

Most readers are familiar with the legal mandate within the 1997 reauthorization of the Individuals with Disabilities Education Act (IDEA) that requires every IEP team to “consider” assistive technology when planning the educational program of each student with a disability. Indeed, a variety of resources have been developed to describe the consideration process (Bowser & Reed, 1995; Chambers, 1997; Edyburn, 2002; Zabala, 1995).

However, significantly less attention has been devoted to understanding how technology facilitates another IDEA requirement: free appropriate public education (FAPE). While some have argued that the assistive technology consideration requirement is a new mandate, in Golden’s analysis (1998, 1999), the mandate for schools to provide FAPE means that assistive technology consideration was previously a requirement. In her view, the 1997 IDEA reauthorization simply formalized a previous responsibility.

I have previously described the “Paradox of Assistive Technology Consideration,” in which many school-based teams lack the necessary tools for informed decision-making about appropriate assistive technology (Edyburn, 2000). In this essay, I will argue that there is an urgent unmet gap in the knowledge base that fundamentally undermines our ability to engage in the assistive technology consideration process.

About a year ago, a local assistive technology specialist contacted me to see if I could help with a problem. The parents of a fifth grade child who was struggling in the process of mastering math facts took issue with recommendations by the school staff and assistive technology team that the child should be allowed to use a calculator to complete her assignments. While the assistive technology team felt this was an appropriate use of assistive technology, the parents perceived the school staff as giving up on their child. They felt that allowing their daughter to use a calculator to complete her math work would be “cheating.”

I’ve pondered this example a great deal. I’m not sure I am any closer to providing a convincing response today than when the situation first occurred. However, it really doesn’t matter what I think. As I understand the discipline of special education technology, it appears to me that we (collectively, the discipline) don’t have an answer to the parent’s concerns. That is, where are the professional guidelines that indicate that all avenues to teach a child should be exhausted prior to the introduction of assistive technology? How do we know whether or not a child has the cognitive capabilities for learning the information? What alternative learning strategies have been used to help the child master the content? Should direct instruction continue while a child is taught the use of a performance aid? If assistive technology is permitted, what will be the consequences of this device dependency?

In my reading I have discovered that two theorists (Cook & Hussey, 1995, 2002; King 1999) have raised the same issue that the parents brought up. That is, how do we decide if the best course of action is remediation (i.e., additional instructional time, different instructional approaches) versus compensation (i.e., recognizing that remediation has failed and that compensatory approaches are needed to produce the desired level of

performance)? Perhaps it is not coincidental that these writers are therapists by training and thus are used to making decisions about physical performance. For example, if I cannot complete certain tasks without my right arm, additional therapy may be an option if I am recovering from surgery, but not an option if I've had an amputation. Certainly, the benchmarks to guide decision-making about remediation and compensation are much clearer in situations involving mobility and sensory impairments. Unquestionably, compensatory approaches are often used because there are simply no other ways to complete the task.

Unfortunately, few guidelines are available to guide decision-making about assistive technology for learning. If a child has repeatedly failed a test of essential knowledge (e.g., adding fractions, states and capitals, presidents of the United States, parts of a plant), how much failure data do we need before we have enough evidence that the child can't perform the task? When do we intervene? And, what do we do? The assistive technology theorists suggest we have a critical decision to make: remediate or compensate.

Teachers are extremely comfortable with the options associated with remediation: reteach the information, use alternative instructional strategies, break the tasks down into smaller parts to analyze what the child knows and what components are problematic, reduce the number of items that must be completed, provide additional practice, engage in one-on-one tutoring, etc. However, if this approach always worked, we would never see high school students that couldn't read independently beyond the second grade level or students who failed to master the basic math facts.

At some point in the educational process, we must recognize the need for compensatory approaches. If a known characteristic of my disability is that I have difficulty processing and retrieving information, then why doesn't the IEP team's consideration of assistive technology result in the recommendation of the web search engine, Ask Jeeves? Functionally, this would allow a child to look up the answers to anything s/he doesn't know. Of course, our first response is that would be cheating. However, change the context. If I was an employer, would I value your ability to find information in a timely manner, or would I prefer to penalize you for the fact that you didn't know?

Obviously, the argument that Ask Jeeves is assistive technology graphically illustrates how much we don't know about assistive technology as a cognitive prosthesis (i.e., who needs it?, what are the benefits associated with its use?, what are the drawbacks to its use?). Further, it highlights the need for frameworks to guide decision-making in the assistive technology consideration process. How much failure data is needed to trigger a decision to de-emphasize remediation approaches and activate the use of compensatory approaches that enhance a child's functional performance?

Despite the current educational reform rhetoric about high academic standards, educational practice prefers to hold time constant rather than performance. That is, if all students are to achieve a given education standard, then time should vary to allow for differences in learning. However, we prefer to hold time constant (one day lessons, two week units) moving onto the next topic despite the extreme variance in performance by a class. As a result, when time is held constant it is impossible to make claims about all students achieving high standards. Rather, it suggests the urgent need to provide compensatory interventions since a student's history illustrates a pattern of failure given typical instructional strategies (e.g., a fourth grader with learning disabilities failed to learn the names and capitals of the 50 states, now we expect him to learn the names of all the American presidents?) Why isn't the use of Ask Jeeves an appropriate assistive technology tool for this student? After all, if time is to be held constant and traditional instruction has generally failed to produce acceptable levels of academic performance, then it appears that the only other option is to explore the use of technology-enhanced performance (assistive technology).

Somewhere there is an invisible line demarcating the boundaries and relationships among teaching (can I claim that I have taught if you haven't learned?), learning differences, expectations and standards, and technology-enhanced performance. If a fundamental characteristic of a disability is difficulty learning, then it behooves the profession to respond with a deeper understanding of assistive technology for learning in order to ensure that children and youth are receiving a free appropriate public education (FAPE). As a result, I believe there is an urgent need to address the gap in the knowledge base regarding the relationship between remediation and compensation as it applies to students with disabilities, their failure to experience high levels of successful academic performance as is their right under FAPE, and the role of assistive technology to enhance learning.

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