Dealing With the Differentiation Debacle

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The two recent commentaries on differentiation have accurately described the vision and potential of an important concept as well as the many challenges facing the implementation of an instructional strategy that has captured unprecedented attention among American educators. Both commentaries, however, have overlooked the one thing that can make differentiation successful without burying teachers under a mountain of time-consuming resource acquisition and classroom management demands that would place unreasonable and perhaps even impossible demands upon their time. This argument is truly a "baby and the bathwater" issue; however, there is a way of differentiating that works.

So picture this. Students sit down at their computers or pick up their hand held devices and respond to a series of questions that document their academic achievement levels, interests, learning styles, and preferred modes of expression. A search engine then scans through various categorical data-bases containing thousands of both basic skill builders and highly engaging enrichment activities that are classified by common core standards, achievement levels, interests, learning styles, and preferred modes of expression styles. The search engine next *matches* these resources to each student's individual profile and sends the resources directly to the student's computer.

Teachers can use the same technology to find topics, subtopics, and sub-subtopics within any general curricular area, unit of study, or pre-selected standard. Using their class lists and categorized student profile data teachers can then identify and send differentiated resources at various grade and achievement levels to their students. They can use their knowledge about various student needs and interests to create and name computer generated achievement level groups and/or interest groups on their classroom dashboard and they can send differentiated resources to individuals, small groups, or their entire classes. The ability to differentiate using this technology is now available and as one teacher who has used it said, "It's like having a dozen teaching assistants in my classroom, every day, all day."

The unfortunate reality of today's standards driven curriculum and the demands on most teachers to improve standardized test scores at all costs has left little time or motivation for teachers to accommodate the many differences that exist in today's demographically diverse classrooms. Our research on reading, for example, has shown that as many as twelve reading levels exist in some heterogeneously grouped middle grade classrooms (Reis et. al, 2011) and in most cases when differentiation strategies are applied, the only changes taking place are content level adjustments (i.e., more drill and practice for low performing students and more advanced content for high achievers). True differentiation must also deal with variations in instructional strategies and classroom organization and management as well as simple adjustment to content levels. Some students learn best through group work and some by working alone. Some students learn more effectively by doing projects, while others learn best by discussion, simulations, computer assisted instruction, or by tracking down on the web just-in-time information and resources needed for a project they are pursuing.

Teachers can also differentiate the learning environment and how they manage it by *infusing* differentiated activities into the standard curriculum. Students can be given opportunities to work individually, in groups with other students who share similar interests or learning styles, or in groups in which every student has a chance to demonstrate his or her own unique style of learning. Students also have preferences for the ways in which they like to express themselves—orally, visually, graphically, dramatically, through construction, digital media, or through various written genres. In basic skill areas there is an almost unlimited amount of material that covers math and reading/language arts concepts at various levels. These materials can easily be directed to individuals or small achievement level groups electronically by letting the computer do the heavy lifting, making the very valuable concept of differentiation a workable reality.

Many of the resources available from the web incorporate opportunities for addressing the kinds of student differences mentioned above and they extend differentiation beyond mere content modifications. A board game called *Escape to Freedom* allows students to learn about the Fugitive Slave Law through a competitive simulation that capitalizes on students who prefer an interactive style of learning about the Civil War. A virtual dissection and mummy preservation activity called *Fun with Mummies* allows students to study Ancient Egypt through a highly engaging and hands-on experience that incorporates anatomy, Egyptian history, language, and culture into the activity. Students interested in STEM applications can build their own roller coaster or underwater Remotely Operated Vehicles. Existing software makes thousands of resources such as these easy to locate, download, and direct to individuals or groups. In places here this approach to differentiation has been used we have witnessed remarkable turnarounds and improved achievement test scores on the parts of struggling or turned-off learners (Field, 2009). In addition, high achieving students have had opportunities to engage in challenging problem-based enrichment projects that extend their thinking skills and creative productivity far beyond what is typically covered in the standards driven curriculum.

As is almost always the case, education is usually slower than other professions to adapt to changes in technology. Conversely, the entire field of health care is now driven by "personalized medicine" literally "differentiated" for patients' needs. Amazon and Netflix know our preferences and only send us selections in which they know we have an interest. And what about the pop-up ads that appear in almost every document downloaded from the Internet? They are always posted by companies from which previous purchases have been made. Differentiation or personalization (my preferred term) in education is a powerful concept and I agree with critics who say that implementation is challenging. But we need to figure out *how* to make it work and the use of technology that is now available is one approach that will enable teachers to easily access the almost unlimited resources that will not only improve achievement, but also make learning the enjoyable, engaging, and exciting process that it should be. Although the previous commentaries on this topic present what appear to be opposing points of view, they serve a very useful purpose of calling our attention to the powerful potential of an instructional strategy that can increase at least a part of the personalized learning process for all students.

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