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While seasoned staff know that there really is nothing new in education, from time to time a compelling concept is revisited which such gusto that it almost takes on a life of its own. This is the case with the concept of differentiated learning. It is not a new idea, by any means, as evidenced by such terms as personalised instruction, individualised learning contract and individual education plan (IEP). Yet, the concept of differentiating learning has captured the attention of educators across the seven continents.

Differentiation Rationalised

There are a number of reasons that educators around the world are interested in this complex process called differentiation. Reasons the educational leadership looks toward differentiating learning include:

- diverse multicultural demographics
- myriad English language learners (ELL)
- local initiatives and state and federal mandates for inclusive classrooms
- the rising mobility of society as a whole and last, but not least
- the emergent science of the brain and learning.

Multicultural Demographics

Perhaps a primary reason that differentiated learning has become a global interest is because, in many cases, the school itself has taken on the features of a global village. Most schools have widely diverse demographics, with a plethora of cultures residing within the walls of one small building or one centralised school district. Meeting the diverse needs of these learners and, at the same time, honoring their cultural norms requires a differentiated approach to learning in the K–12 classroom.

English Language Learners

Paralleling the cultural mosaic is the mixture of multiple languages represented by this varied and rapidly growing international population. The number of English language learners (ELL) is exploding in our border state schools as well as in our large urban centres. With this influx of countless native languages, the need for differentiation screams out to the policymakers and leadership of our schools.

Inclusive Classrooms

In addition, couched in a philosophy of choosing the concept of inclusive classrooms and/or with the official mandate for inclusion as the 'least restrictive environment' for each and every learner, classrooms are fully integrated. Children with physical and mental challenges of all kinds, as well as students with a far-reaching range of learning disorders, are part and parcel of the regular



classroom dynamics. Differentiation is the only effective way to address this plethora of needs.

Increasing Mobility

Unlike any time in history, the ability for families to move from one part of the country to another is unprecedented. Corporate moves, migrant immigrants, climate-oriented relocations and even minor moves within the school district zones are all reasons that school populations are more transitory than ever before. With these constantly changing demographics, differentiated learning is front and centre on the instructional agendas.

Brain Science

Yet the most compelling rationale for differentiation comes with the study of the brain and learning. It is currently an explosive field, with the advent of myriad brain imaging techniques that tell the story of the brain and how it learns. The well-accepted fact that each brain is unique sets the stage for differentiating learning in our classrooms. Each brain has a different set of wiring, because each person has different DNA and different world experiences. Therefore, it follows that each brain makes its own unique connections in its own unique way. Differentiated classrooms recognise this and tailor learning opportunities accordingly.

In sum, differentiation is a natural outgrowth of these various factors. Differentiation is one response to the many kinds of minds we find in one classroom, one school or one district. In fact, differentiation is the only reasoned response to the multitude of differences we find in our academic world.

A Story That Tells The Story of Differentiation

Imagine three inviting prizes hanging on a wall and three youngsters reaching for the prizes. One youngster, the tallest of the three, reaches the prize with no evidence of effort at all. The second youngster reaches the prize only after stretching as high as possible she possibly can standing on her tippy toes. Finally, the third youngster is not able to reach the prize, even on his tippy toes and stretching and stretching in vain. In terms of differentiating learning, the question is this: Does the teacher lower the prize or do we give the student a chair? That's the essence of the concept of differentiation, in a nutshell!

Differentiation Defined

What It's Not

Differentiation does not mean louder and slower. It does not mean special education classes, gifted education, learning resource rooms or pull-out and push-



in programs. It's not about labelling, sorting or disenfranchising any student in any way. In fact, it's the antithesis of these things.

What It Is!

Differentiation is about welcoming each and every learning, in celebration of the uniqueness of each one. It's about a robust instructional repertoire within the walls of the classroom. It's about having an assortment of teaching tools and techniques to meet the diverse needs of students. It's about different strokes for different folks and about different entry points to learning.

Differentiation is about change, challenge and choice in today's classroom: Change the content! Change the process! Change the product! Change the pacing! Change the environment! (Kefault, 1999) Change something! It's about the opportunity to learn through the many ways of knowing and expressing what one knows. Differentiation is about standards-based learning and high-quality teaching. It's about accepting each and every learner that comes our way and expecting the best from each and every one of them.

Differentiation at Work

This anthology is comprised of five separate and distinct strategies, which integrate in myriad ways to create rich and relevant responses for instructional differentiation. Included in the collection are the contents of five In a Nutshell books, which have been flowed into a single, cohesive work.

The first section consists of a conceptual discussion on differentiation, entitled *Differentiating learning: Different strokes for different folks*. It lays out the models of Tomlinson (1996) and Fogarty (1997). While the second section embraces the critical strategy of cooperative learning for differentiated classrooms, it presents the nuts and bolts of this versatile and popular strategy in a chapter entitled *Cooperative learning: A standard for achievement*. The third section of the anthology addresses a multiple intelligences approach to differentiating learning and explores entry points and end points of learning for various kinds of learners. It is entitled *Multiple intelligences for differentiating learning*. The fourth entry in the anthology discusses the strategy of higher-order thinking as a method for differentiating learning. Many specific skills are explored in *Higher-order thinking skills: Challenging all students to achieve* as a way to challenge different students. And, finally, the fifth strategy in this anthology introduces the concept of differentiated assessments for K–12 classrooms, in the chapter called *Performance assessments: Evidence of learning*. Using performance tasks, checklists and rubrics to differentiate assessment, this is a critical element in the differentiated classroom.

All in all, the anthology considers the varied and valued elements of differentiation through in-depth discussions. The pages are filled with the theoretical underpinnings of each element of differentiation, in addition to practical ideas for immediate implementation. Great value, this anthology is a must-have for the skilled teacher.



'Different strokes for different folks' says it all! Differentiating learning in the classroom speaks to this very notion. Not everyone learns in the same way or in the same time. It is an indisputable fact from two extraordinary sources: human genetic make-up and human personal reservoirs of first-hand experiences.

Brain science 101 verifies the first fact that, while genetic makeup is predetermined, each brain is still unique as a thumbprint. Each human brain, while it has similar structures and performs similar functions to other brains, is uniquely wired. That wiring is constantly changing as the brain experiences and learns. So, it is obvious and clearly accepted fact, that no two brains are exactly the same. No two brains learn, retain or express learning in the same exact ways.

On the other hand, from the perspective of nurture, rather than nature, it is also an accepted fact that each brain continues to rewire itself through personal experiences and first-hand knowledge. By examining the differences in siblings, the reader is able to discern the multitude of differences present in families who have very similar genetics. One sibling is action-oriented and tactile in his learning, while another sibling prefers a more abstract way of learning through reading and reflecting. Again, no two brains learn, retain or express learning in the same exact ways.

The astonishing conclusion is, of course, that the classroom teacher has 25 to 30 different brains attending each class session and 25 to 30 brains changing as each brain is making new connections as it learns. So, not only does the teacher have a differentiated classroom of learners, she also has dynamic, fluid brain activity in each of those 25 to 30 ever-changing brains. If these facts do not elicit a call to differentiated instruction, nothing ever will.

Yet, one must imagine the complexity of the mission for teachers. Imagine targeting each learner in ways that access the learning, challenge the learner and propel that unique learner to his or her highest intellectual potential! It is a daunting task at best, but one that is accommodated systemically by the concept of differentiation.

Using the brilliant framework of Carol Ann Tomlinson for differentiating instruction (1996), this chapter presents a comprehensive explanation of this conceptual model. Tomlinson believes that by changing the content, or changing the process, or changing the product, teachers can modify any lesson or curriculum to accommodate myriad learners. While this seems like a simplification of the differentiation process, it is the most basic foundational approach used by practicing teachers everywhere.

By changing the content, teachers offer various materials, of different type, style and complexity, to reach and teach the spectrum of learners in that classroom. By changing the process, teachers design various and sundry methods for learning the material, including direct instruction, cooperative learning or inquiry-based investigations. By changing the product, teachers foster creative expression of the learning through traditional, portfolio or performance assessment strategies.

In addition to these three basic tailoring techniques, two critical ingredients have been included in this chapter by Fogarty (1997): change the content,



process and product with *challenge* and *choice*. Teachers must set high expectations for each and every child in their care and they must provide opportunities for student choice. For when they do, students meet the expectations and take ownership of the learning. Challenge and choice are the icing on the basic differentiation cake!

It is that simple. Teachers take their lesson and tweak it by changing the content, the process, the product, with challenge and choice, for the accelerated learners; they tweak it differently by changing the content, the process, the product, with challenge and choice, for the struggling learners. And, they tweak it differently, still, by changing the content, the process, the product, with challenge and choice for the uniquely situated learner.

In its most synthesised form, the strategies for differentiation dovetail into an elegant model:

1. Begin with a *standards-based lesson* for consistency, continuity and accountability and then,
2. Tweak it into a *brain-based lesson* for specificity, customisation and accommodation. Allow the lesson to meet the standards, the benchmarks and the highest bar set by the authorities, yet, allow the lesson to invite the novice, the competent and the most proficient learners in the classroom. Differentiate with structure and with sensibility.

Footnote: Another researcher/writer on differentiation, not previously represented in this chapter is Martha Kaufeldt (1999), who introduces yet two more influences to consider in the differentiation framework. Kaufeldt includes differentiation as crafted by Tomlinson: change the content, process and product ... and change the environment. In addition, Kaufeldt agrees with Fogarty (1997) and suggests the need to include student choice in the differentiation equation.

