TIPS FOR TEACHING

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Differentiating Instruction to Include All Students

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IT IS THE FIRST DAY of school. Amanda is a very bright, inquisitive fourth grader who loves science and math. Amanda's parents travel extensively and often take her along on trips. Sitting next to Amanda is Reno. Reno just moved to America from Cuba and speaks limited English. This is Reno's first year in an American school. He is apprehensive about going to school, his lack of English proficiency, and how his peers will perceive him in his new class. Seated across from Reno is Jacob, who is "high energy" and rarely shifts into low gear. Jacob has not liked school much since first grade. He has spent a lot of time from first through third grade in the principal's office because of his "disruptive behaviors." Needless to say, Jacob does not look forward to the beginning of another school year where his teacher's expectations and his learning styles will clash. In another pod of students across the classroom is Roger. Roger's mom is a single parent working two jobs so she rarely has the opportunity to attend school functions. Roger's previous teachers concluded that he suffered from a low self-concept and more than likely had an unidentified learning disability.

It is August and Mr. Wright is ready and prepared to start up another school year with his new group of fourth graders. Mr. Wright loves teaching and has taught for five years at the same school. He cares about his students and expects "their best work at all times." Because of increasing accountability demands, Mr. Wright has relinquished many of the creative teaching practices he once envisioned implementing in his classroom. He cannot keep track of the number of times he has heard his principal reiterate, "Fourth grade is a testing grade so everything you teach must be aligned to the test." Because of the pressure from the school's administration, Mr. Wright uses a lot of workbooks and other material specifically designed to increase students' achievement on the statewide assessments. As a result of the increasing demands and performance expectations, students typically work in fixed groups based on their ability levels which Mr. Wright determines on the basis of information obtained in their cumulative files prior to the start of school. By the fourth week of school, Mr. Wright knows he will be asked by his Curriculum Specialist to submit the names of those students who are not performing at grade level. Mr. Wright starts another school year like those before with introductions, a review of the rules and consequences, and the classroom procedures, as well as passing out and assigning student textbooks and materials.

The scenario above is neither uncommon nor unrealistic in depicting some of the intricate student differences within classrooms today, as well as the challenges K–12 teachers face in responding to the differing needs of students in a time of increased pressure of accountability and high-stakes testing. Although teachers have yearned for decades for more responsive and effective methods in addressing students' differences, many children perform daily on the "margins" of their classrooms—never fully engaged and rarely ever catching a glimpse of their brightest potential. Is it too idealistic to think that the Amandas, Rogers, Jacobs, and Renos in today's classrooms can coexist, growing and learning socially and academically despite their unique differences and learning styles? Many argue that it is not at all idealistic to think that K–12 teachers can differentiate instruction to meet all children's needs while also adhering to standards and state performance testing (e.g., Baumgartner, Lipowski, & Rush, 2003; Brighton, 2002; Brimijoin, Marquissee, & Tomlinson, 2003; Lawrence-Brown, 2004;

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Smutny, 2003; Sternberg, Torff, & Grigorenko, 1998; Tomlinson, 1999; Tomlinson, 2000).

What Is Differentiated Instruction?

Differentiation is not at all a new concept. The one-room schoolhouse is a prime example of teachers differentiating to meet the needs of all students. Differentiated instruction stems from beliefs about differences among learners, how students learn, differences in learning preferences, and individual interests. By its nature, differentiation implies that the purpose of schools should be to maximize the capabilities of all students. Differentiated instruction integrates what we know about constructivist learning theory, learning styles, and brain development with empirical research on influencing factors of learner readiness, interest, and intelligence preferences toward students' motivation, engagement, and academic growth within schools (Tomlinson & Allan, 2000). Unlike Mr. Wright, teachers who differentiate know they are incorporating best practices in moving all of their students toward proficiency in the knowledge and skills established in state and local standards.

Teachers who differentiate believe that every child is unique, with differing learning styles and preferences. They may differentiate based on students' readiness by varying the levels of difficulty of the material covered in class. Teachers may opt to differentiate key skills and material to be understood by aligning them with particular students' affinities and topics of interest (i.e., geography, music, foods, wildlife, and architecture). Differentiation may be made by the teachers based on what they know about students' learning preferences (i.e., intelligences, talents, learning styles), allowing students' choices in working independently, with partners, or as a team; or providing varied work spaces that are conducive to various learning preferences (i.e., quiet work spaces, work spaces with tables instead of desks). Of the utmost importance to the teacher who differentiates is providing a learning environment and opportunities that exclude no child.

Critical Elements of Differentiated Instruction

Most important to differentiated instruction are the elements of choice, flexibility, on-going assessment, and creativity resulting in differentiating the content being taught, or how students are processing and developing understanding of concepts and skills, or the ways in which students demonstrate what they have learned and their level of knowledge through varied products. Teachers determine at the onset of their planning what their students should know and what each child should be able to do at the conclusion of the lesson or unit (Tomlinson, 2000).

When differentiating the content aspect of a lesson, teachers may adapt what they plan for the students to learn or how the students' will gain access to the desired knowl-edge, understanding, and skills (Tomlinson & Allan, 2000). Instead of varying the learner objectives and lowering performance expectations for some students, teachers may differentiate the content by using texts, novels, or short stories at varying reading levels. The teachers may choose to differentiate the content by using flexible grouping, affording students to work in alike groups using books on tape or the Internet as a means for developing understanding and knowledge of the topic or concept. Some students may choose to work in pairs, small groups, or independently, but all are working toward proficiency on the same performance standards or curriculum objectives.

Differentiating the process within a lesson refers to how the learners come to understand and assimilate facts, concepts, or skills. In traditional lesson planning, the process is the guided and independent practice within a lesson. Despite differences in abilities, learning styles, and students' prior knowledge, this component of a lesson is typically a stable constant in most instructional lessons, meaning that all students complete the same type and amount of practice.

In the opening vignette of Mr. Wright's class, Amanda, Reno, Jacob, and Roger might all practice identifying parts of a story using the same workbook page with completion expected at the end of the day's literacy block. Instead, the teacher may have chosen to differentiate based on students' readiness resulting in clustering the children in "alike" literacy circles; giving each group leveled questions based on their readiness skills related to the objective of the lesson. For example, because of his limited English proficiency, Reno may work with a group of peers who have less developed skills and need more direct instruction by a teacher, assistant, or parent volunteer. The questions for his group may be more concrete and less multi-leveled (e.g., Who are the characters within the story? Where does the story begin? What is the plot of the story?). In contrast, Amanda may work in a group that is also expected to know and understand the parts of the story, but because her reading and vocabulary skills are more developed, Amanda's group responds to more abstract and multi-leveled questions (e.g., Who is the main character in the story? Can you name at least two other fictional characters from other novels that have similar characteristics? Who are the supporting characters and why are they important to the story? What is the main problem of the story? Describe a time when you, or someone you know, had a similar problem.). Other ways to differentiate the process aspect of a lesson include tiering the independent work activities, learning centers, and individualized homework enrichment projects (e.g., Baumgartner, Lipowski, & Rush, 2003; Brimijoin, Marquissee, Tomlinson, 2003; George, 2005; Lawrence-Brown, 2004; Madea, 1994; Tomlinson & Allan, 2000; Wehrmann, 2000; Winebrenner, 1996).

Differentiating the performance measure or product component of a lesson means affording students various ways of demonstrating what they have learned from the lesson or unit of study. Differentiation of assessments or products may be constructed in various ways by the teacher such as using choice boards (with predetermined options), or the use of open-ended lists of potential product options from which students' select or contract for their final product. The purpose of the product (regardless of its format) is for students to recall what they have learned in the lesson or unit. Differentiated products challenge students at all levels to make decisions, be responsible for their own learning, as well as affording them opportunities to demonstrate what they know through products that are representative of their unique learning preferences, interests, and strengths.

In Mr. Wright's classroom, products differentiated on the basis of students' interests may mean that Amanda and Roger work together on demonstrating what they have learned about their state's geography, whereas Jacob, Reno, and others may work as a small team to present on the main industry of the region. All students can work toward demonstrating what they have learned through varying representations on the basis of their unique interests. Each individual is assessed using established criteria (typically, a rubric) by the teacher assessing students' mastery of the knowledge and skills outlined within the lesson or unit. This approach to assessing students' knowledge not only yields reliable assessment of their knowledge and skills but also provides evidence of each individual's value to the learning process within the classroom.

Getting Started

For Mr. Wright, starting differentiation may begin with the creation of learning profiles; simple profiles of each student containing pertinent information specific to learning preferences, family structure, favorite hobbies and interests, and other aspects of interest. Each profile may also contain specific grade-level information for each child such as state assessment scores, Lexile reading scores, and fluency recordings. These individual student profiles are central to a teacher's inspiration in planning engaging, student-centered differentiated lessons and instructional activities. Mr. Wright will use individual student profiles to plan flexible groupings and build tiered lessons that address the unique talents and abilities of Reno, Amanda, Jacob, and Roger without sacrificing rigorous curriculum standards and performance expectations.

Mr. Wright may choose to start off by introducing his students to differentiated instruction by modifying the process of a few lessons. For example, he may create a "choice board" from which his students can select activities he has carefully constructed on the basis of his knowledge of their readiness levels in reading (see Appendix A). By develop-ing a choice board, Mr. Wright has provided his students with important options, flexibility in how they demonstrate the knowledge and skills they have learned after direct instruction has occurred, as well as affording them the opportunity to make decisions and actively participate in their own learning. Every child has a choice board with only Mr. Wright knowing the differing levels of the activities from which the students have to choose. Every student will complete two out of the six activity options and each individual will have demonstrated skill toward the objective of the lesson; only they will have taken varying paths of "how" they demonstrated their performance.

Next, Mr. Wright may decide to introduce differentiated projects to his students. For example, at the conclusion of a social studies unit on regions of the state of North Carolina, Mr. Wright may provide his students with a list of possible projects from which students must decide how to best demonstrate their newfound knowledge and skills (see Appendix B). Students may choose to work in pairs, small groups, or individually. Mr. Wright's responsibility in planning the differentiated product selections is to include possible project options that afford every student an opportunity to be successful in demonstrating knowledge and skills. Some of the options created by Mr. Wright will require students to receive some guidance and direct instruction from him, whereas other selections may release the student(s) to work independently only requiring teacher assistance when needed or requested. Some students may create their own timeline for completion of their projects depending on their abilities to do so, whereas others may require direction and more frequent monitoring by Mr. Wright. What is important is that Mr. Wright's students are not only achieving the curricular performance benchmarks, but they are exploring, creating, making decisions, and playing an important role in their own learning process.

Taking the First Step

Mr. Wright surrendered his ideals toward teaching to the needs and talents of all of his students (much like many teachers) because of increased pressures in meeting benchmark proficiency standards and student performance expectations. Can he justify using differentiated approaches to learning within the framework of accountability? Some individuals in the field of education continue to question whether differentiated instruction can withstand rigorous accountability standards and high-stakes testing. More and more research is beginning to emerge within the field of education supporting the potential for differentiated instruction as a vital means of assisting diverse learners in their acquisition of knowledge and skills while also breaking down the barriers that inhibit their unique abilities to successfully demonstrate their maximum potential as learners (cf. Baumgartner, Lipowski, & Rush, 2003).

Specifically, Baumgartner, Lipowski, & Rush used differentiated instruction to improve reading achievement of primary and middle school students across two Midwestern communities. In their study, Baumgartner et al. used differentiated instructional strategies as a purposeful intervention to students' deficits in basic phonemic awareness and comprehension skills, coupled with their difficulty in selecting appropriate books and overall lack of interest in reading. The specific differentiated strategies implemented in this study included flexible grouping, student choice on a variety of tasks, increased self-selected reading time, and access to a variety of reading materials. On the basis of analysis of student achievement data and attitudes toward reading, Baumgartner et al. concluded that the implementation of differentiated instructional strategies had been an effective approach toward successfully increasing reading achievement. Specifically, the targeted students increased their reading levels, were more effective in their application of comprehension strategies, and demonstrated mastery of phonemic and decoding skills.

Although studies like that of Baumgartner et al. give valuable insight into the potential impact of differentiated instruction on achievement of diverse learners, by no means does it fill the apparent gap in research on this important and timely topic. Most certainly, more and more teachers need to investigate their applications of "differentiated thinking" toward instructional planning and implementation of lessons through action research projects, professional conference presentations, and other projects. A plethora of differentiated lessons currently exists and can easily be accessed via the Internet. However, more illustrations and examples of research methodologies used for examining its effectiveness when implemented with diverse students is critical in determining whether or not this instructional approach to teaching students with diverse backgrounds, abilities, and learning styles is indeed, a viable approach to teaching all types of learners and a long awaited response to the ever-present demand for accountability in educating P–12 students.

Perspective on Differentiating Instruction

In differentiated classrooms, all students are engaged in instruction and participating in their own learning. Students know that learning is a process and they know their own strengths and areas in need of improvement. In a classroom with differentiation of the curriculum, learning process, or performance outcomes, all students assume responsibility for their learning through the decisions they make in their selections of activities and products, in their abilities to self-assess their work, and by the manner in which their teachers (hopefully even Mr. Wright) are flexible and creative in responding to their unique and individual learner characteristics. Differentiated thinking empowers teachers to be responsive rather than reactive to the unique and individual personalities, backgrounds, and abilities found within students. Clearly what we need to know about this approach is more evidence of its effectiveness with diverse P–12 student populations. Undoubtedly, teachers are best and most likely to discover its potential impact by the increased quality of students' products and growing abilities to evaluate their own progress.

Can differentiated instruction be the answer to meeting accountability and performance standards for at risk and marginal students within our schools? Alone, probably not, but combined with continuous assessment, responsive educational programs that provide necessary interventions and remediation for our most struggling students, as well as positive school, home, and community supports for students, it may indeed be the closest alternative we currently have in our schools enabling professionals to truly be attentive and effectively responsive to all learners.

REFERENCES

Baumgartner, T., Lipowski, T., & Rush, C. (2003). Increasing reading achievement of primary and middle school students through differentiated instruction. Unpublished doctoral dissertation, Saint Xavier University, Chicago, IL.

Brighton, C. M. (2002). Straddling the fence: Implementing best practices in an age of accountability. *Gifted Child Today Magazine, 25*(3), 30–33.

Brimijoin, K., Marquissee, E., & Tomlinson, C. (2003). Using data to differentiate instruction. *Educational Leadership, 60*(5), 70–74.

George, P. S. (2005). A rationale for differentiating instruction in the regular classroom. *Theory into Practice, 44*(3), 185–193.

Smutny, J. F. (2003). *Differentiated instruction: Fastback*. Bloomington, IN: Phi Delta Kappa Educational Foundation

Sternberg, R. J., Torff, B., & Grigorenko, E. L. (1998). Teaching triarchically improves student achievement. *Journal of Educational Psychology, 90*(3), 374–384.

Tomlinson, C. (2000). Reconcilable differences? Standards-Based teaching and differentiation. *Educational Leadership, 58*(1), 6–11.

Tomlinson, C. (1999). Mapping a route toward differentiated instruction. *Educational Leadership, 57*(1), 12–16.

Tomlinson, C. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: Association of Supervision and Curriculum Development.

Tomlinson, C., & Allan, S. D. (2000). *Leadership in differentiating schools and classrooms*. Alexandria, VA: Association of Supervision and Curriculum Development. (ERIC Document Reproduction Service No. ED469218)

Wehrmann, K. S. (2000). *Baby steps: A beginner's guide. Educational Leadership, 58*(1), 20–23.

Winebrenner, S. (1996). *Teaching kids with learning differences in the regular classroom.* Minneapolis, MN: Free Spirit.

APPENDIX A
Choice Board—Fourth Grade Literacy

1. Write yourself into the story as a main character. What is your primary role in the story? Describe your interactions with the other main characters of the story.	2. Choose a main character in the story. Pretend you are meeting him or her 10 years later (after the story was written). What is he or she doing now? How has the character changed from when he or she were featured in the story? What does he or she want the public to know about him or her now?	3. Draw or create a map of the settings found within the story. Depict the most important locations found in the story where main events occurred. Make sure to include important natural and manmade landmarks. If possible, include main source of transportation, income, and resources (i.e. food, water).
4. Research and find a location that resembles the main setting of the story. List similar characteristics from the story and the real-life location. Point out any differences that you find. Tell what might have changed in the story if the main characters lived in your location, instead of the setting found in the story.	5. Develop a timeline for the story you have read. Include all main events and characters in your timeline. Timeline may be written or drawn in a flowchart format. Include in your timeline keywords linked to the main events as they occurred in the story.	6. You are a profiler for the local detective agency. Write a detailed, descriptive profile of one of the main characters in the story. Give as much detail as possible in your description. You may also choose to include pictures of the character you have chosen. Make sure to tell as much as you can about the character including why you find him/her interesting.

APPENDIX B
Product Options
Fourth Grade Social Studies Unit

Choose one of the following options as your final project for our study of North Carolina

1. Write and perform a skit illustrating a main region of North Carolina.
2. Draw a map illustrating the primary landforms and businesses of a region in North Carolina.
3. Research another state and identify a similar region to one of the primary North Carolina regions.
4. Create a *Jeopardy* game using three of the main regions of North Carolina. Include all questions that address all important facts about each region you have chosen.
5. Research and create a primary region and create a travel brochure for that location. Include in your brochure primary recreation points of interest, food, lodging, historical features, and/or fun things to do.

You may choose to work alone, with a partner, or in small groups to complete one of the above projects. All projects have to be pre-approved by Mr. Wright before you can begin your work. On the contract below list who (if anyone) you will be working with, which project you plan to complete, any help you think you may need from Mr. Wright, and your estimated timeline for completing the task.

Product Option Contract

Student's Name:_____   Product Option #_____

I will be working: (a) Alone

(b) With a partner _____
                                      Partner's Name

(c) With a small group:

                                _____ _____
                                _____ _____

I (we) will have the work completed on this project by _____

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