Differentiation

One of my clearest memories in school was a moment of frustration in second grade mathematics. I was learning to graph the number of beans we counted, but I had no idea how to do this. To me, there were beans and oversized graph paper; they had nothing to do with one another. The idea of a visual representation was overwhelming. The teacher had explained and provided an example of her graph, but all I could do was count the beans and stare at my paper. The teacher’s assistant came over and placed the beans on my graph paper and asked me to trace each bean of a different color in a column. Suddenly I had a graph, but more importantly I finally understood. All I needed was for the task to be presented in a new way. I needed differentiation in order to understand the curriculum.

Differentiated instruction as defined by Carol Tomlinson is tailoring instruction to meet individual needs (2000). Differentiation may come in the form of altered content, process, products, or the learning environment. Tomlinson emphasizes the use of ongoing assessment and flexible grouping to make differentiation a successful approach to instruction. From my own experiences as a teacher, and as a student, I believe in incorporating differentiation into all aspects of my classroom and have witnessed positive effects on student learning.

Differentiating the element of content consists of changing what the student needs to learn and how he or she gains access to the information. One way Tomlinson prescribes changing content is by meeting with small groups or individuals to re-teach an idea or skill for struggling readers. I worked with a colleague to tutor a first grade struggling reader. During the first two weeks we indentified her unique reading needs. This initial report enabled us to understand her particular interests, struggles, strengths, and weaknesses. We pulled her from class once a week to reinforce concepts she was struggling with such as sight word recognition,
spelling, and global comprehension. Tomlinson encourages differentiating by using reading materials at varying readability levels. When my colleague and I worked with the student, we used lower level Fontas and Pinnell books than those used in her classroom to build her confidence and site word recognition. In addition to these books, we participated in guiding reading with the student that involved books at a higher reading level to meet her interests. In this lesson plan, we read a Dr. Seuss book to meet student interest and read the story to her. We asked her to fill in the blanks whenever a sight word on her list appeared. I noticed a positive response from the student. She was tackling a more challenging book and paying attention to her interests garnered more attention from her throughout the lesson.

Tomlinson also supports the idea of altering content by presenting content through a variety of means. Throughout our reading interventions, my colleague and I incorporated a blend of visual, auditory, and tactile experiences. Lesson plans including the use of instructional materials such as playing site word bingo with incorporated visual elements through the presence of words, auditory elements as we read words to her, and tactile experiences as she manipulated the tokens. We noted during our initial assessment that the student was easily distracted, but the incorporation of multiple means in activities such as the bingo activity held her attention longer. Much of our instruction was driven by the student interview which helped us assess her attitude on reading as well as her interest levels. The final week of our reading intervention showed that the student made much progress and differentiating the content to meet her unique learning style and needs was successful. She was able to recognize the majority of the site words we had introduced and had developed the ability to retell stories with accuracy. She entered our tutoring sessions with more confidence, less hesitation, and gave us with more uninterrupted attention.
Tomlinson also supports differentiating the classroom element of process; the activities students engage in so that they may understand the content. This can be done in a variety of ways including offering manipulatives and hands-on activities for students who need them. This is evident in a lesson plan that I created for fourth grade mathematics during student teaching. This was a geometry lesson on the angles that are present in triangles. The students had to complete a page in their workbooks about this topic. While I used the Smart Board to display and explain the concept of each angle, I also incorporated the use of manipulatives in the lesson for students who needed to see the content in a different way. I began the lesson by having three students act as points on a triangle with each holding a long piece of string. The students moved their position to create a variety of triangles. This created a visual and a hands-on activity for many students that jogged their thinking for the lesson. We took three different length straws of 3, 4, and 5 inches and connected them with twist ties so that students could make their own various triangles and manipulate the length. While some students no longer needed the use of the manipulatives, some students used them for the remainder of the lesson. As I walked around and observed the students and their work, it was obvious these manipulatives were effective. Some students needed them for the majority of the lesson, others needed them occasionally, and some students told me the manipulatives helped for a visual demonstration but they no longer needed them. The use of the manipulatives brought all ability levels to a point where they understood the concept.

Another way to differentiate through process is to vary the length of the assignment. This can provide additional support to a struggling learner and encourage advanced learners to pursue a topic with more depth (Tomlinson, 2000). This type of differentiation is evident in my lesson plan on writing persuasive letters. This lesson plan requires all of the students to learn the composition of persuasive letters, preplan a persuasive letter, write a persuasive letter of their
own, and to share their letters with one another. Students who easily absorb the content and finish the work early are provided with extensions such as composing a children’s book that highlights the dangers of rainforest destruction, write a rhyming poem about rainforest destruction, and write and record public awareness commercials about rainforest destruction. For students who need more time to complete and comprehend the assignment, they are provided extended time, students with motor difficulties can type to assist in completing the assignment in a timely manner, and students who need organizational assistance can receive an outline to help them complete the persuasive essay. This lesson plan allowed for all students to complete the same task at their own pace and the product for all students was the same. The students who needed more time or accommodations do not feel pressured and those students who finish early examine the topic further rather than moving ahead or becoming bored. I would score all students on the same rubric for the persuasive letter because they have all been provided with appropriate accommodations to meet their individual needs in completing the assignment.

One essential aspect of differentiation is flexible grouping. Teachers may chose to use whole class instruction, small group instruction, or individual instruction. The students can be grouped based on their readiness, interests, or learning profile (Cox, 2008). I incorporated flexible grouping throughout a third grade lesson on Brazil topography while I was student teaching. The lesson plan called for students to create topographical maps of several important geographical features of Brazil using clay. I placed the students into groups of 3 or 4 based upon readiness levels. Readiness is described as a student’s current level of preparedness to work with particular knowledge and skills (Tomlinson, 2000). If a student finds the work too easy, he or she will not learn and the same will occur if it is too difficult. All students learn when the work is just slightly above their current level, catering to their zone of proximal development (Cox,
2008). Some students found Brazil’s geography difficult while others found the topic easy. All groups were asked to incorporate the same geographical features into their maps; this included features such as the Amazon River, mountain ranges, the capital, etc. For higher level groups, I provided them with a blank poster board and detailed copies of Brazil maps. They were able to construct the shape of Brazil and were in charge of their own planning and deciding what each feature should look like and where it should be located. For the groups who needed more assistance, they were provided a poster with a black outline of Brazil to provide shape. They were also provided with books on Brazil and its geography that broke each feature down at various reading levels. For the group that needed the most guidance, I provided them with a poster with a black outline of Brazil with a few geographic features penciled in so that they could have a starting point and understand what the task would entail. This group was also provided with books at various reading levels and pictures to guide them. These adaptations for each group allowed all students to complete the task in a way that was challenging for them and pushed them to just above their current level. I was able to circulate and monitor where each group needed assistance and listened to their discussions and understanding.

During this lesson, I also assigned students a role in their group based upon their learning profile. A learning profile refers to a student’s preferred mode of learning (Tomlinson, 2000). For this particular assignment, I created four distinct roles for the four members of each group to fill. These roles included manager, fact checker, engineer, and mediator. The manager role fit students with strong leadership abilities, the fact checker was preferred by students who have strong reading and investigative qualities, the engineer fit students who prefer hands on experiences and planning, and the mediator fit students with strong interpersonal skills. For the lower level groups, I assigned each student a role based on their demonstrated abilities in class
and for the higher level groups I allowed the students to choose amongst themselves how to break into their roles. The students in the higher level groups chose their roles in a way that highlighted each individual’s greatest strengths. It was evident throughout the lesson that these roles ensured all group members remained engaged in the task. Although various aspects of this project were differentiated the students all produced the same product in the end. This is important; because differentiation means different work, not more work (Latz, Speirs Neumeister, Adams, & Pierce, 2009, p. 27). The differentiation allowed us to come together at the end of the lesson and reflect on what was learned while the students all took different paths to achieve this final product.

Product is another classroom element that teachers can differentiate. Product according to Tomlinson refers to the culminating project that teachers ask students to rehearse, apply, and extend what he or she has learned in a unit. This type of differentiation is evident in my Universal Design Learning plan. Universal Design for Learning (UDL) is an evidence based curriculum approach that increases learning access for students with diverse backgrounds and learning styles. It seeks to design the curriculum, methods of teaching, and learning styles usable by all students in the classroom without the need for extensive specialized design (Post & Berger, 2011, p. 12). The UDL that I created was designed for a diverse 5th grade classroom studying cell characteristics. Tomlinson supports differentiating product by giving students options of how to express required learning. This is evident through the use of my choice board as the culminating activity at the end of the unit. This choice board provides students with 9 ways that they can express their understanding of the unit on cells. There are three choices for each color of red, green, or blue. The students may choose one assignment from each color. They are provided with choices such as composing a play or writing about cells in the form of a poem.
This provides students with options of how to express the required learning and caters to their unique learning styles. Additionally, the UDL unit plan incorporates planning around Bloom’s Taxonomy. This allows teachers to design projects that meet the needs of all skill levels of students in the class (Cox, 2008, p. 53). The use of Bloom’s Taxonomy enabled me to break down the content, process, and product of the lessons and plan accordingly. Differentiated instruction and UDL go hand in hand. When combined, they can provide teachers with both theory and practice to appropriately challenge the broad scope of students in classrooms today. The promise of differentiated instruction and UDL in educational practices is changing along with the classroom profile of students, resources, practices, and reforms (Hall, Strangman, & Meyer, 2003). I believe that both of these practices have made me a more effective educator by encouraging me to look at student needs and differences and ways in which students can reach the same learning targets through different paths.

Tomlinson also supports that the learning environment, or the way a classroom works and feels can also be differentiated. One way to differentiate the learning environment is to provide a variety of learning materials that reflect many cultures and home lifestyles. I believe in incorporating reading materials that reflect a variety of cultures. This is evident in a lesson plan that I created for my third grade class during student teaching. I designed this lesson so that the students could compare another culture to their own, looking for similarities and differences.

During the lesson I read Gata Borralheira, the Brazilian version of Cinderella to my students. I did not share with them which American fairy tale it was similar to. I read the story out loud to the students due to the higher reading level and unfamiliar vocabulary. This allowed all students equal access to comprehending the material. I instructed the students to listen carefully as they followed along with their own copy of the story, I told them to look for similarities to another
fairy tale they may know as well as differences from that story. We created a Venn diagram together once they recognized that it was similar to Cinderella. This allowed us to discuss the Brazilian culture in further detail and also provided our class with an opportunity to reflect on our own cultures and fairy tales from them. The tales and versions of tales that were shared represented a wide variety of cultures.

The learning environment can also be improved by incorporating local history and resources to reflect the students’ local community and culture. I designed the following lesson plan with local culture and history in mind. The lesson was integrated into a fieldtrip to Springside and Locust Grove historical sites located in the Hudson Valley. The lesson requires students to become familiar with the naturalist writing style of John Burroughs, a Hudson Valley Naturalist. They read some of his works, collected pieces of nature, created a collage, and wrote their own naturalist style journal at various stations. This activity required the students to immerse themselves in their own local culture and the local nature as well. The students became familiar with the historical background and experienced a hands-on activity that captured their attention. In addition to providing the differentiation in learning environment this lesson also included differentiation in the form of process, content, and product. Content is differentiated because the lesson is presented through auditory and visual means, the process is differentiated by providing interest centers for students to rotate through, and product is differentiated as the students are allowed to create a visual representation in the form of a collage, diorama, or any other visual means they chose.

There is no single magical strategy that will work for all students in every school. I have learned to differentiate the curriculum to find strategies that meet the needs of the class as a whole and to reach individual students and their needs. I have learned through differentiation
practices that providing fair instruction in the classroom is not providing the same instruction to every student. It is providing each student with the tools he or she needs to succeed and understand that instruction.
Standards:

Differentiating instruction in my classroom along with Universal Design for Learning encompasses standards one and three. Standard one states that teachers must create learning experiences that make subject matter meaningful to students. I achieve this by getting to know my students, their unique needs and learning profiles, and planning lessons accordingly. By familiarizing myself with student interests, I embed their interests in lessons to meet their unique learning profiles. Standard one calls for teachers to present the subject matter in multiple ways; this is evident through my use of station work, flexible grouping, visual and auditory presentations, and choice boards to accommodate student interests. I do not adhere to one model of instruction for all students; I present the material in a variety of ways to reach all students and their learning profiles. Standard One also states that teachers should create interdisciplinary learning. I achieve this goal by incorporating reading and writing elements into all of my lessons. For example, the social studies lesson on Brazilian fairy tales incorporated a writing element that asked students to compare and contrast the differences between the two fairy tales. I believe interdisciplinary learning and differentiation blend well together because students have a wide variety of interests, and interdisciplinary lessons will likely include an element that sparks an interest.

Standard three states that teachers should understand how students differ in their approaches to learning and should also create instructional opportunities that are adapted to diverse learners. This is evident through my lesson plans which accommodate for student differences in a variety of ways, they are never built around a one size fits all model. Flexibility exists in the amount of time I provide students, the way they can express their learning, and a variety of resources to meet individual needs. Standard three also states that teachers should
connect instruction to student’s prior experiences and family, culture, and community. This is evident throughout my lesson plans on Brazil when I ask students to compare and contrast the different culture to their own cultural experiences and family. Additionally, this occurs with my local lesson plan which asked students to connect their own experiences to those in the past. Relating lessons to student’s own cultures supports differentiate work by incorporating their different experiences. **Standard three** also states that teachers should design and implement individualized instruction based on prior experience, learning styles, strengths and needs. I achieve this by accommodating for all students by making accommodations through technology, reading levels, and materials such as manipulatives for struggling students and providing extension activities and challenges for advanced students. I accommodate for unique learning by allowing for flexible projects and presenting material in a variety of ways including auditory and visual means.
References

