Product Research & Documentation

Differentiated Instruction Guide

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Schools must respond to an ever-growing population of students with varying cultural and linguistic backgrounds. English learners are the fastest growing population in our public school system (Leos, 2004). In 2002, Pearlman estimated that by 2015 more than 50% of the public school K-12 student population in the United States would be English language learners. These students would be learning the language of instruction while learning the grade level standards and a wide range of literacy skills, he noted. In an article in the US News, Scott Sargrad (2016) seconded this prediction, saying, “America recently passed a remarkable milestone in public education: For the first time, minority students—Black, Hispanic, Asian-American and Native-American students—now make up a majority of our public school students.” Educators must take into account the needs and the differences that exist among the students in a single classroom. Thus, a need arose for Mentoring Minds to develop an educational product that would positively affect the success of diverse learners in the classroom.

The **Differentiated Instruction Guide** is a resource that provides educators with techniques and strategies for helping all students achieve success in the classroom.

Teachers must have access to tools that help them design high-quality instruction and respond appropriately to all learners. The most recent legislation, Sec. 1111(b)(1) in the 2015 Every Student Succeeds Act (Mandlawitz, 2016), requires states to adopt state standards as well as English language proficiency standards. Schools have to address this accountability requirement and meet the accountability plans developed at the state level, which should meet the criteria established by ESSA. Teachers and administrators must respond to the challenges prevalent in their classrooms by successfully addressing the needs of all learners, differentiating student engagement to make it more meaningful. While the standards adopted by each state provide guidelines to support the instruction of such learners, the **Differentiated Instruction Guide** is an easy-to-use tool that provides educators with flexibility and direction in creating an environment for effective learning and improving the delivery of high-quality instruction in all content area settings. This compact guide provides background knowledge, techniques, tools, and strategies that support teachers in planning and delivering differentiated instruction for all learners.

The **Differentiated Instruction Guide** is a K-12 resource that contains 14 tabbed sections. Each section in the guide features strategies or techniques to help the classroom teacher or any educator who works with a diverse group of students provide focused educational support. The role of the teacher is to assist all students in acquiring both the skills and content knowledge they need to participate in learning activities equally with their peers and to meet grade-level expectations. This resource provides specific direction to differentiate instruction, helping each learner reach success in an educational setting.

Differentiated instruction (DI) is a process used in teaching and learning for students of differing abilities in the same class. The intent of differentiating instruction is to maximize each student’s growth and individual success by meeting each student where he or she is and assisting in the learning process. To differentiate instruction is to recognize students’ varying background knowledge, readiness, language, preferences in learning, and interests, and to react responsively. This compact resource supports the teacher in responsive teaching and scaffolded learning, recognizing that all students learn at different paces and in different ways.
According to Carol Ann Tomlinson, who is often regarded by educators as the guru of how to differentiate for diversity within a classroom, differentiated instruction is a teaching theory. She based this theory on the premise that instructional approaches should vary and be adapted in relation to individual and diverse students in classrooms (Tomlinson, 2001). Tomlinson stated that differentiation does not mean changing the outcome for students, but rather utilizing different avenues to success with those outcomes. Many authorities in the field have strong beliefs about differentiated instruction, or DI. The major purpose of differentiated instruction is to maximize each student’s growth by responding appropriately to each student based on where the student is (Hall, Strangman, & Meyer, 2003). All teachers must adhere to the state standards for the specific content taught. These standards represent the knowledge to be taught, but differentiated instruction gives a meaningful way to teach those required standards (Protheroe, 2007a; 2007b). Thus, the Differentiated Instruction Guide provides the teacher with a tool that helps them successfully respond to student needs.

This review of the literature about differentiated instruction may lack empirical validation, but differentiation is based on various theories and practices, and there is evidence of the effectiveness of differentiation as a classroom practice. Based on Hall’s report (2002, p. 5),

According to the proponents of differentiation, the principles and guidelines are rooted in years of educational theory and research. For example, differentiated instruction embraces the concept of “readiness,” in that the difficulty of skills taught should be slightly in advance of the child’s current level of mastery. The work of Lev Vygotsky (1978) shows that the zone of proximal development (ZPD), the range at which learning takes place, has a huge impact on teaching and learning. The classroom research conducted by Fisher et al. (1980), strongly supports the ZPD concept. These researchers found that in classrooms where individuals were performing at a level of about 80% accuracy, students learned more and felt better about themselves and the subject area being studied. (Fisher, 1980 in Tomlinson, 2000)

Other practices that appear at the core of differentiation have been validated in the effective teaching research from the mid 1980’s to the present. These practices include effective management procedures, grouping students for instruction, and engaging learners (Ellis & Worthington, 1994).

As stated previously, there is no empirical validation of differentiated instruction for differentiation, but there are existing testimonials and classroom examples that note evidence of differentiation as an effective practice. Authors of several publications have shared their findings. Carol Ann Tomlinson reported individual cases of settings in which the full model of differentiation was very promising, and teachers using differentiation have shared in writing about improvements in their classrooms.

There are three areas that support the practice of differentiated instruction: readiness, interest, and learning profile (Tomlinson & McTighe, 2006). These areas are addressed in the Differentiated Instruction Guide. In a classroom that reflects differentiated practices, educators must analyze the readiness, interest, and learning profiles of students. This data helps differentiate or personalize instruction to address the diverse needs within classrooms.

Tomlinson and McTighe (2006) noted that readiness explores the basic knowledge, understanding, and skill a student has. They shared that learners need to be challenged. If tasks are too easy, learners can become bored and will not learn. Motivation appears to be reduced when tasks are consistently too difficult. Learners should be moderately challenged with their learning experiences. Fisher (1980) determined
that when teachers diagnose the skill level and assign appropriate tasks, students can learn more effectively. Still another researcher (Hunt, 1971) reported that students learn more effectively if task structure is matched with appropriate developmental level. Based on a five-year longitudinal study of adolescents (Csikszentmihalyi et al., 1993), it was observed that when students were given tasks that were less than challenging, a low involvement level in learning activities was displayed with the concentration of students steadily decreasing.

Interest is relevant because it explains a student’s engagement with a topic (Tomlinson & McTighe, 2006). When a student’s interest is considered, learning is likely to be more rewarding and the student may advance toward becoming an independent and responsible learner. Engagement with learning is maximized as is productivity. Interested students are likely to apply themselves and work in a sustained manner. When teachers allow time for students to discuss feelings and share ideas and interests, Hennessey & Zbikowski (1993) found that student motivation can be maintained.

Homework blends easily with the concepts of differentiation based on readiness, interests, and learning profile (Tomlinson & McTighe, 2006). Harris Cooper (2001) analyzed 17 studies involving 3,300 students in 85 classrooms and 30 schools in 11 states. Findings revealed that the average student completing homework had a higher achievement score than 55% of the students who did not complete homework. Cooper also reported that the greatest positive effects of homework by subject were found in mathematics assignments, followed by reading, English, science, and social studies. Also reported was the fact that homework effectiveness increases with the age of the child and has its greatest effects on high school students. Cooper suggested that homework should be viewed as a diagnostic tool rather than an opportunity to test. Homework should focus on practice, integration of concepts learned during the day, and simple introductions to the next lessons.

Reeve (1996) noted that internal and external factors both affect student motivation. Internal factors include the individual characteristics or behaviors of students, such as their interests, values, perceptions of themselves and their abilities for learning, and responsibility for learning (Ainley, 2004). Recognition should be given to students for actual achievement; otherwise, the effect might have a negative impact on motivation and achievement. Praise may be given, but it should be personal and culturally appropriate.

Schools can affect the external factors in a positive or negative manner. The learning environment can support and change student motivation. Ainley (2004) identified “classroom features, peer groups, instructional practices, tasks” as some of the factors that schools could influence. Other practices implemented to encourage motivation include providing relevant instruction that actively engages students and helping students form positive peer connections.

Several other researchers agreed that schools could positively influence student motivation and promote educational success (Einspruch, Grover, Hahn, Guy, & Deck, 2001; Shore, 1998; Yair, 2000). Schools could implement techniques such as creating an open and caring campus environment, using and integrating a variety of instructional strategies and resources, employing a wide range of student supports, conveying high expectations that all students are capable of achieving, and promoting student-learning conversations between and among faculty.
As noted in the *Differentiated Instruction Guide*, learning style preference is an essential piece to success in school. Learning preference pertains to modes of learning or the processes students best need for learning (Tomlinson & McTighe, 2006). Dunn and Griggs (1995) reported that when student profiles were addressed for elementary students, secondary students, students with emotional difficulties, and learning disabilities, as well as for Native Americans, Hispanic, Asian, and Caucasian students, positive learning effects occurred. Delpit (1995) concluded that the success of students from many minority groups is likely to suffer when cultural differences are not valued. Students achieved significantly better when classroom instruction was matched to their preferences for learning (Grigorenko & Sternberg, 1997; Sternberg, 1997; Sternberg, Torff & Grigorenko, 1998).

As quoted in *Assessment as Learning: Using Classroom Assessment to Maximize Student Learning* (Earl, 2003, p. 39), “Learning occurs best in an environment that exhibits positive interpersonal relationships and interactions, comfort and order, and one where the learner feels appreciated, acknowledged, respected, and validated.” Earl recognized that Lambert and McCombs (1998; 2000) acknowledged the role the environment plays in shaping student learning. In the *Differentiated Instruction Guide*, classroom environment is targeted as an important feature when designing highly effective instruction for learners. A well-organized and well-managed classroom is essential for effective implementation. Differentiated instruction requires careful and thoughtful planning. Valuable instructional time will be wasted if guidelines and procedures are not in place. Strategies are suggested for maintaining an effective classroom environment for differentiating instruction. A classroom’s environment can influence student attitudes about learning and learning itself.

When teachers develop an understanding of factors that impact student learning, they can better define the learning options to make available to students. There are many computer-based solutions through online applications and other digital materials that educators can use to deliver instruction. Digital resources are always changing and provide teachers with multiple options to meet the needs of their students. Teachers can impact success in learning by selecting appropriate technology solutions that meet the areas of instruction being differentiated (Smith, et al., 2007). Combining technology with other solutions gives teachers the opportunity to engage students and produce positive learning outcomes (Stanford, et al., 2010). Becoming aware of the strategies shared in the guide and then identifying with available technology applications will strengthen student learning and address the wide range of needs of students. As reported by Tomlinson (2000b), there is more than one way to differentiate instruction.

Student choice is also an essential part of a differentiated classroom. Collins & Amabile (1999) suggested that if students are given the freedom to choose questions and topics for study, it can lay the groundwork for creative achievement. Positive influences on learning can occur in both the short and long term if students are interested in what they study (Hébert, 1993; Renninger, 1990). Student choice enhances engagement and motivation as it can give students a feeling of empowerment. Choice does not mean that students have total control of learning, but that options are provided in ways to learn and ways to demonstrate learning. Another differentiated technique to increase student capacity for learning is tiered assignments (Tomlinson & Strickland, 2005). Still another is to maximize learning time by incorporating anchor activities to meet the time criterion. Other techniques to consider in a differentiated classroom are flexible grouping (Tomlinson, 2001), brain-based strategies (Greenleaf, 2003; Tomlinson & Kalbfleisch, 1998) and universal design for learning strategies (Hall et al., 2012; Rose & Meyer, 2000). In the *Differentiated Instruction Guide*, all of these techniques and strategies are incorporated to guide teachers on usage.
The following studies depicted the findings on the impact of differentiated instruction in classrooms and support the rationale for using the *Differentiated Instruction Guide* as a support for teachers. These studies highlighted the impact of differentiation in math, reading, and science instruction at the elementary, middle, and high school levels. As reported by Brenda Logan (2011, p.5), the quoted findings are:

Tieso (2001) looked at a qualitative study of teachers and students who took part in a 3-week enhanced unit in math. Findings reveal that the students evidenced positive levels of engagement, motivation, and excitement about learning.

Fisher, Frey and Williams (2003) documented that the average student in a particular high school read at a 5.9 grade level but advanced from 5.9 to 8.2 after 4 years of differentiated instruction.

Baumgartner, Lipowski and Rush (2003) used differentiated approaches in reading (e.g., flexible grouping, student choice of various tasks, increased self-selected reading, and access to various reading materials). Improvements were observed in instructional reading levels, use of comprehension strategies, phonemic and decoding skills, and attitudes toward reading.

Tieso (2005) examined the effects of curricular differentiation with between- and-within-class grouping on student achievement. After the administration of curriculum-based assessment as a pre- and post-test measure, Tieso concluded that the students with diverse abilities who received differentiated instruction scored significantly higher in mathematics achievement than those students who did not.

Mastropieri, Scruggs, Norland, Berkeley, McDuffie, Tornquist and Conners (2006) compared quantitative outcomes associated with class wide peer tutoring for students with mild disabilities. The methods used were differentiated hands-on activities versus teacher-directed instruction in inclusive 8th grade science classes. The results indicated that collaborative hands-on activities statistically facilitate the learning of middle school science content on posttests and on state high-stakes tests for all students. Observations noted the enjoyment of students while participating in the activities.

The federal law, the 2015 Every Student Succeeds Act (ESSA), directed states and districts to devise plans to help schools focus on helping all students learn by addressing academic concerns earlier rather than waiting on students to fail (Mandlawitz, 2016). No matter the plan, as schools prepare to provide effective instruction, the implementation of a differentiated approach paves the way for all students to be successful in school. The ESSA declares the importance of high quality, evidence-based instruction. From the reported studies, there appears to be a high level of evidence to support differentiation practices in classrooms. Schools are accountable for the progress of all students in meeting grade level standards. While the standards determine what must be taught, as teachers design lessons that transfer the standards into quality learning experiences, this resource can assist in how to deliver the instructional experiences in ways that meet all student needs.

The Teacher Resources Team at Mentoring Minds considered the requirement of the law, studied the literature on principles and practices of high-quality teaching, and discussed findings from related studies to determine the 14 panels cited in the *Differentiated Instruction Guide* and
the associated strategies, techniques, and practices. Any teacher working with diverse learners can use this guide. A notable value of this educational resource is to build or extend the background knowledge of teachers about strategies or ideas that researchers and the review of literature have identified as important to effective instruction that differentiates learning. In conclusion, the Differentiated Instruction Guide provides significant insight on what instruction might look like that engages all learners and leads them to be successful in learning. Through the implementation of differentiated instruction, educators are in a position to address diverse student needs that can also produce positive outcomes.

References for Differentiated Instruction Compact Guide


