



DIFFERENTIATED INSTRUCTION – A BEST PRACTICES REPORT

Prepared for Utah Leading through Effective, Actionable, and Dynamic (ULEAD) Education

May 2019

In the following report, Hanover Research and ULEAD provide an overview of differentiation in PK-12 educational settings. In particular, this report reviews differentiation as a broader concept while also delving into the specific applications of differentiation for planning and delivering instruction and assessments. Findings from this report can assist Utah's districts and schools in supporting their teachers' ability to effectively practice differentiation.



TABLE OF CONTENTS

Executive Summary.....	3
INTRODUCTION	3
RECOMMENDATIONS	5
KEY FINDINGS.....	5
Section I: Principles and Design	7
DEFINING DIFFERENTIATION	7
KEY ASPECTS OF DIFFERENTIATION.....	10
Section II: Instruction and Assessment.....	13
DIFFERENTIATED INSTRUCTION.....	13
ASSESSMENT STRATEGIES.....	17

EXECUTIVE SUMMARY

INTRODUCTION

No two students are alike. In fact, the U.S. student population grows more diverse as the country moves further into the 21st century, with teachers increasingly encountering students with a wider range of racial, ethnic, cultural, and socioeconomic backgrounds, and academic, physical, and social skills.¹ While diversity represents a tremendous opportunity for teachers and students to learn, it also presents challenges for instructional planning and delivery (e.g., ensuring all students' needs are addressed).² Because "[e]very child in America deserves a world-class education," districts, schools, and teachers must navigate these challenges by embracing differentiation.³ Essentially, through differentiation, teachers tailor instruction more closely to students' current needs, interests, and abilities to raise their motivation for learning and promote more efficient acquisition of key knowledge and skills.⁴



PROMOTING LEARNING FOR ALL
Students come to school with varying backgrounds, abilities, experiences, and interests, and teachers must account for these variations if they and their students are to be successful. No singular instructional plan will address the needs of all learners, necessitating a more comprehensive and adaptable approach to teaching and learning.

There are numerous reasons that teachers should differentiate instruction and assessments (see Figure A on the next page). When differentiation occurs in PK-12 classrooms, all students benefit whether they are struggling or performing above grade-level.⁵ Teachers report that differentiated instruction results in more engaged students who "[experience] greater success[, feel] learning [is] more relevant[...and take] greater ownership of content, products[,] and performances."⁶ Research also indicates that differentiation may result in positive academic outcomes.⁷

¹ "Classroom Diversity: An Introduction to Student Differences, Page 1: Introduction to Diversity." IRIS Center, Vanderbilt University. <https://iris.peabody.vanderbilt.edu/module/div/cresource/q1/p01/>

² "Diversity Toolkit Introduction." National Education Association. <http://www.nea.org/tools/diversity-toolkit-introduction.html>

³ [1] "Diverse Learners." U.S. Department of Education, May 2010. p. iii. <https://www2.ed.gov/policy/elsec/leg/blueprint/faq/diverse-learners.pdf> [2] "Strategies for Diverse Learners." Nebraska Department of Education, July 2017. pp. 255–256. <https://www.education.ne.gov/wp-content/uploads/2017/07/FLFDiv.pdf>

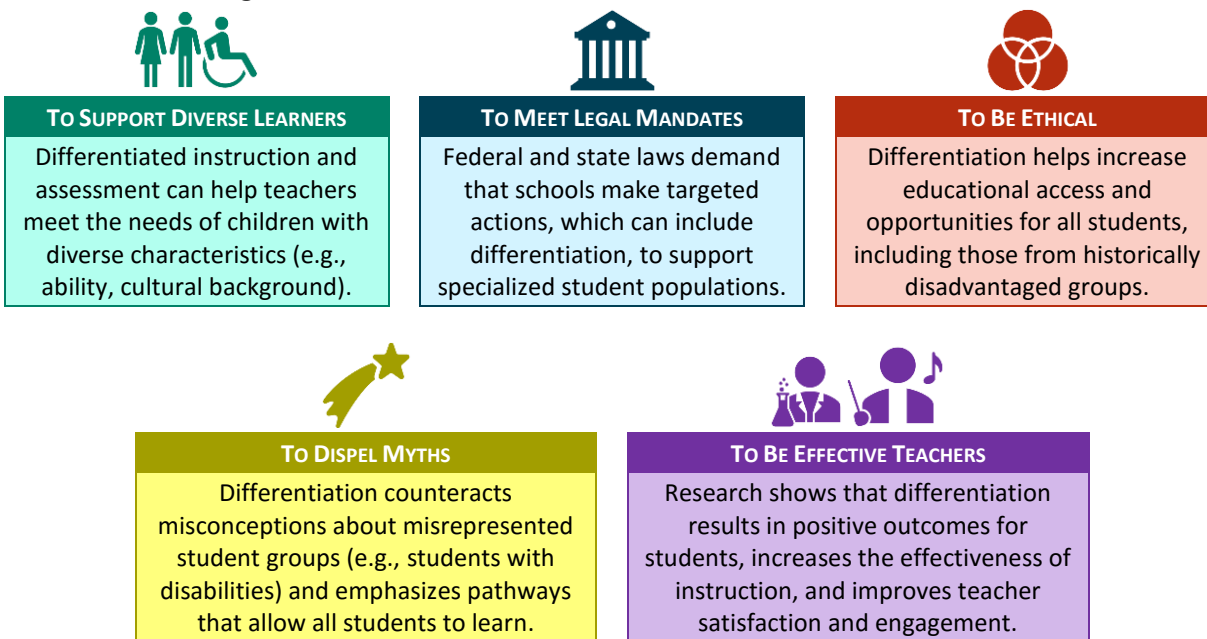
⁴ Nelson, L.L. "UDL and Differentiation: Finding Harmony." SWIFT Education Center, University of Kansas. <http://www.swiftschools.org/talk/udl-and-differentiation-finding-harmony>

⁵ Olinghouse, N. "Designing Lessons for Diverse Learners." College of Education, Michigan State University, 2008. p. 1. <http://education.msu.edu/te/elementary/pdf/Designing-Lessons-for-Diverse-Learners.pdf>

⁶ Stetson, R., E. Stetson, and K.A. Anderson. "Differentiated Instruction, From Teachers' Experiences." AASA | American Association of School Administrators. <http://www.aasa.org/SchoolAdministratorArticle.aspx?id=6528>

⁷ [1] "Reach Every Student Through Differentiated Instruction." EduGAINS | Ontario Ministry of Education. p. 7. <http://www.edugains.ca/resourcesDI/Brochures/DIBrochureOct08.pdf> [2] Subban, P. "Differentiated Instruction:

Figure A: Reasons to Differentiate Instruction and Assessment



Source: Corwin⁸

To support Utah districts and schools in understanding differentiation and supporting their teachers in implementing differentiated instruction and assessments, Hanover Research (Hanover) and ULEAD (Utah Learning through Effective, Actionable, and Dynamic) Education have developed this report. Specifically, this report provides a conceptual overview of differentiation and investigates effective strategies that Utah teachers can use for the purpose of differentiation. The report is organized into two sections:




- **Section I: Principles and Design** defines and discusses the central features of differentiation. Hanover and ULEAD encourage Utah's districts and schools to use this information to clarify their conceptualization of differentiation and establish clear expectations around the approach to share with stakeholders.
- **Section II: Instruction and Assessment** explores best practices for differentiation in instructional planning, delivery, and student assessment. Utah's districts and schools are encouraged to use the discussed strategies to develop relevant professional learning and technical resources to support teachers.

A Research Basis." *International Education Journal*, 7:7, 2006. pp. 942–944.
<https://files.eric.ed.gov/fulltext/EJ854351.pdf>




⁸ Figure adapted from: "Why Differentiation of Instruction Now?" Corwin. pp. 3–8.
https://www.corwin.com/sites/default/files/upm-binaries/67615_Pages_from_Thousand_1_Differentiating_Instruction_2e_3.pdf

RECOMMENDATIONS




Based on our research findings, Hanover and ULEAD recommend that Utah districts and schools consider:

-  **Administering surveys or hosting focus groups with teachers** to determine their understanding of and comfortability with differentiated instruction and assessment strategies;
-  **Providing explicit professional development on the purpose and mechanics of differentiation** based on feedback from surveys and focus groups to clarify expectations within their organization, build awareness of the approach, and provide guidance on implementation; and
-  **Establishing collaborative committees of teachers and administrators** to develop a cache of differentiated instructional planning and assessment resources to reduce the time teachers require to identify or develop new materials.

KEY FINDINGS

-  **The goal of differentiated education is to ensure that all students learning in the same classroom—regardless of their different abilities and academic readiness—have equitable access to educational opportunities and resources that meet their needs.** Teachers should hold all students to the same expectations and goals related to mastery of essential content but may utilize different techniques and modified activities to help each student meet outlined objectives. Via differentiation, teachers respond proactively to differences in students' knowledge, skills, learning styles, interests, and cognitive needs in order to create multiple access points to content. Teachers may differentiate several tasks or pathways within the same lesson that match the needs of specific students or student groups.
-  **Differentiated instruction requires teachers to consider and utilize multiple teaching approaches and student group strategies within the context of a single lesson in order to plan and deliver high-quality instruction to all students.** Teachers practicing differentiated instruction center their planning and delivery on students' current levels of readiness, interests, and learning profiles (e.g., needs, learning styles) to build multiple pathways to achieve defined learning outcomes and meet established content standards. In planning differentiated instruction and designing accompanying materials, teachers should ensure that all potential tasks are based on continuous assessment data, and that tasks are respectful, challenging, interesting, and worthwhile for students. Teachers should push students slightly beyond their comfort zones to promote learning and growth.
-  **Teachers should evaluate lesson design elements which allow for the greatest degree of modification and adaptability.** Specifically, teachers must consider modifications to a given lesson's content, processes, and products, and take into account student affect and the learning environment in order to effectively address students' specific learning needs. Likewise, teachers must make intentional

decisions regarding what and how they are going to teach in order to develop and execute several viable pathways that concentrate on those concepts and skills students must learn to achieve outlined learning objectives.

-  **Differentiated instruction requires both teachers—and administrators—to collaborate on the development of curricula and teaching strategies that are diverse and inclusive to all learners.** In order to diversify instruction through content, process, product, and environment, educators within a school must make multilevel instructional decisions, develop resources and supports for low-ability students, consider the types of in-class supports that will be provided to students with documented disabilities and advanced talents, and create whole-class lessons that avoid the separation of students into working groups based on ability. Taken further, teachers who effectively differentiate instruction should also adapt lessons while in progress to meet previously unanticipated challenges to students' learning.
-  **Frequent use of assessments is an essential prerequisite for driving how instruction is differentiated in order to adhere to students' preferred learning styles, interests, and abilities.** Assessments can be implemented before, during, and after instruction to monitor student progress relative to differentiated instruction. Importantly, pre-, formative, and summative assessments create the foundation from which teachers can differentiate classroom instruction to better support students.
-  **Differentiated assessment also refers to offering students various formats for displaying their academic performance.** Flexibility in the work products and performances that students complete to demonstrate newly acquired knowledge or skills supports accurate evaluation of students' capabilities while also allowing students to leverage their strengths to achieve the same standards as their peers. Reflecting guidance related to differentiated instruction, differentiated assessment may also leverage modifications to products that students create to display content mastery at various junctures within a given instructional sequence. Importantly, teachers must also ensure that all available assessment options adhere to the outlined learning objectives or target content area standards and generate relevant, actionable information that can inform future cycles of differentiated instruction.

SECTION I: PRINCIPLES AND DESIGN

In this section, Hanover and ULEAD define and discuss the central features of differentiation.

DEFINING DIFFERENTIATION

Differentiation generally refers to the use of a diverse range of instructional strategies, curricular activities and lessons, and performance assessments in order to accommodate students' various learning needs, academic abilities, and preferred learning styles.⁹ Essentially, teachers practicing differentiation plan and implement multiple instructional and assessment tasks within the same instructional period. Teachers also orient these tasks to specific sub-groups or individuals within the same instructional grouping (e.g., class) to match their "varied levels of readiness, learning needs, and interests."¹⁰

Differentiation rejects the "one-size-fits-all" approach to teaching and learning and, instead, prioritizes greater targeting of tasks to improve access to curricular content in a manner best-suited to students' current performance, learning styles, and interests.¹¹ Successful differentiation relies on adherence to several core principles emphasizing the diversity of students, the need for flexibility and choice in activities and student groupings, and the use of assessment data to guide instruction, as shown in Figure 1.1 on the following page.¹² By adhering to these principles, teachers can better address the needs of all students, including English learners, students with disabilities, students with gifts and talents, students in need of additional support, students performing at an "average" level, and students achieving at a high level.¹³

⁹ Huebner, T.A. "Differentiated Learning." *Educational Leadership*, 67:5, February 2010.

<http://www.ascd.org/publications/educational-leadership-feb10/vol67/num05/Differentiated-Learning.aspx>

¹⁰ "Differentiated Instruction." Teaching Excellence in Adult Literacy | U.S. Department of Education.

<https://lincs.ed.gov/state-resources/federal-initiatives/teal/guide/differentiatedinstruction>






¹¹ Tucker, G.C. and K. Torre. "Differentiated Instruction: What You Need to Know." Understood.

<https://www.understood.org/en/learning-attention-issues/treatments-approaches/educational-strategies/differentiated-instruction-what-you-need-to-know>

¹² Robb, L. "What Is Differentiated Instruction?" Scholastic. <http://www.scholastic.com/teachers/articles/teaching-content/what-differentiated-instruction/>

¹³ "Differentiated Instruction: Maximizing the Learning of All Students, Page 1: Defining Differentiated Instruction." IRIS Center, Vanderbilt University. <https://iris.peabody.vanderbilt.edu/module/di/cresource/q1/p01/>

Figure 1.1: Principles of Effective Differentiation

PRINCIPLE	DESCRIPTION
 <p>Flexibility</p>	Demonstrating clarity about learning goals, teachers and students understand that time, materials, modes of instruction, ways of grouping students, ways of expressing learning, ways of assessing learning, and other classroom elements are tools that can be used in a variety of ways to promote individual and whole-class success.
 <p>Based on Assessment</p>	Student differences are expected, appreciated, and studied. Teachers recognize where students are relative to learning goals, as indicated by formative and summative assessments. Teachers recognize everything a student says or creates is useful information in understanding that learner and crafting effective instruction for him or her.
 <p>Variable Grouping</p>	Differentiated classrooms utilize whole-class, small-group, and individual explorations. Students may work with peers who manifest similar academic needs at a given time. At other points, students of mixed readiness work together in settings that draw upon their strengths. Sometimes students work with classmates who have similar interests or learning styles, and in other situations, students of varied interests and learning styles collaborate. Finally, students themselves sometimes decide on their work groups and arrangements, and sometimes, teachers decide.
 <p>Equitable Tasks</p>	Every learner must have tasks that are engaging and provide equitable access to essential understandings and skills. Each student should feel challenged, find their work appealing, and grapple with the necessary information, principles, and skills to understand, apply, and move to the next learning stage in the discipline being studied. Differentiation does not presume different tasks for each learner, but rather flexibility in task complexity, working arrangements, and modes of learning expression.
 <p>Collaboration</p>	While teachers diagnose and prescribe for learning needs, facilitate learning, and craft effective curricula, students are critical partners in classroom success. Students hold pivotal information about what works for them at any given moment of the teaching-learning cycle and can make choices that enhance their learning. Teachers study their students and continually involve them in decision-making about the classroom.

Source: Association for Supervision and Curriculum Development¹⁴

The goal of differentiated education is to ensure that all students learning in the same classroom—regardless of their different abilities and academic readiness—have equitable access to educational opportunities and resources that meet their needs in achieving a standard set of learning objectives. Teachers hold all students to the same expectations and goals related to mastery of essential content but may utilize different techniques and modified activities to help each student meet outlined objectives.¹⁵ Via differentiation, teachers respond proactively to differences in students' knowledge, skills, learning styles,

¹⁴ Figure text quoted verbatim, with minor adaptations, from: Tomlinson, C.A. and S.D. Allan. "Leadership for Differentiating Schools and Classrooms: Chapter 1, Understanding Differentiated Instruction: Building a Foundation for Leadership." Association for Supervision and Curriculum Development, December 2000. <http://www.ascd.org/publications/books/100216/chapters/Understanding-Differentiated-Instruction@-Building-a-Foundation-for-Leadership.aspx>

¹⁵ "Differentiation." Glossary of Education Reform | Great Schools Partnership, November 7, 2014. <https://www.edglossary.org/differentiation/>

interests, and cognitive needs and create multiple access points to a given set of content.¹⁶ In fact, differentiation directs teachers to "look at 'zones' in which students cluster so they can offer three or four routes to a goal on a given day."¹⁷ However, differentiation does not equate to *personalized instruction*. Teachers may differentiate several tasks or pathways within the same lesson that match the needs of specific students or student groups, but lessons are not customized to individual students nor are distinct or separate assignments given to individual students.

Moreover, differentiation is not:¹⁸

- When assignments are the same for all learners, but the level of difficulty of assignments varies for certain students;
- “Dumbing down” or “watering down” instruction or standards to make learning easier for some students; nor
- Individualized instruction, in which design materials and tasks match the particular needs of each student.

Differentiation does not mask differences among students and their perspectives. Rather, it is designed to accentuate differences and strengths and use them to structure curricular content, learning activities, and formative and summative assessments.¹⁹ Thus, teachers focus planning and instructional delivery on a blend of activities that leverage and respond to student differences in their readiness, interests, and learning profiles (see Figure 1.2 on the following page).²⁰

¹⁶ “Differentiated Instruction.” Coalition of Essential Schools. <http://essentialschools.org/benchmarks/differentiated-instruction/>

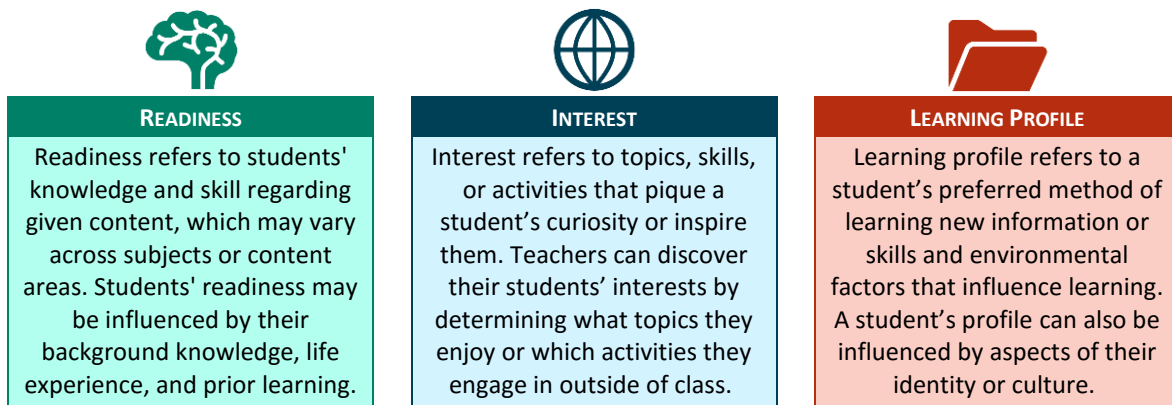
¹⁷ “Culturally Responsive Differentiated Instructional Strategies.” Metropolitan Center for Urban Education, New York University, August 2008. p. 3.
<https://steinhardt.nyu.edu/scmsAdmin/uploads/005/120/Culturally%20Responsive%20Differentiated%20Instruction.pdf>

¹⁸ Bulleted text quoted verbatim, with minor adaptations, from: “Culturally Responsive Differentiated Instructional Strategies,” Op. cit., p. 3.

¹⁹ Sparks, S.D. “Differentiated Instruction: A Primer.” Education Week, January 28, 2015.
<https://www.edweek.org/ew/articles/2015/01/28/differentiated-instruction-a-primer.html>

²⁰ Tomlinson, “How to Differentiate Instruction in Academically Diverse Classrooms (3rd Edition), Chapter 1: What Differentiated Instruction Is—and Isn’t,” Op. cit.

Figure 1.2: Student Characteristics to Guide Differentiation



Source: IRIS Center, Vanderbilt University²¹

KEY ASPECTS OF DIFFERENTIATION

Differentiation encompasses two defining structural features: *differentiated instruction* and *differentiated assessment*. On the following page, Figure 1.3 provides an overview of how the features of a differentiated approach differ from those in a traditional classroom. In brief, differentiated instruction recognizes and builds on student readiness, interests, and learning profiles by gathering information via pre-, formative, and summative assessments.²² Then, using the gathered assessment data, teachers adjust lesson content, instructional processes, learning tasks, and expected work products so that each student can display their understanding and their attainment of specified learning outcomes.²³

²¹ Figure text quoted verbatim, with minor adaptations, from: "Differentiated Instruction: Maximizing the Learning of All Students, Page 3: Know Your Students." IRIS Center, Vanderbilt University. <https://iris.peabody.vanderbilt.edu/module/di/cresource/q2/p03/#content>

²² "Differentiated Instruction: Maximizing the Learning of All Students, Page 2: General Principles." IRIS Center, Vanderbilt University. <https://iris.peabody.vanderbilt.edu/module/di/cresource/q1/p02/>

²³ [1] "Differentiated Instruction: Maximizing the Learning of All Students, Page 4: Differentiate Instructional Elements." IRIS Center, Vanderbilt University. <https://iris.peabody.vanderbilt.edu/module/di/cresource/q2/p04/>
 [2] Tomlinson, "How to Differentiate Instruction in Academically Diverse Classrooms (3rd Edition), Chapter 1: What Differentiated Instruction Is—and Isn't," Op. cit.

Figure 1.3: Comparing Traditional and Differentiated Classrooms

TRADITIONAL CLASSROOM	DIFFERENTIATED CLASSROOM
Differences are masked or addressed if problematic	Differences are studied as a basis for planning
Assessment is most common at the end of learning	Assessment is ongoing and diagnostic
A relatively narrow sense of intelligence prevails	Focus on multiple forms of intelligence is evident
A single definition of excellence prevails	Excellence is defined in large measure by growth
Student interests are infrequently tapped	Students often make interest-based choices
Few learning profile options are taken into account	Many learning profile options are honored
Whole class instruction dominates	Many instructional arrangements are used
Coverage of texts and curriculum guides drives instruction	Student readiness, interests, and learning profiles shape instruction
Mastery of facts and skills out of context are the focus of learning	Use of essential skills to make sense of and understand key concepts is the focus of learning
Single option assignments are the norm	Multi-option assignments are frequently used
Time is relatively inflexible	Time is used flexibly according to student need
A single text prevails	Multiple materials are provided
Singular interpretation of content is sought	Multiple perspectives of content are sought
The teacher solves problems	Students help students and teachers solve problems
The teacher provides whole-class grading standards	Students work with the teacher to establish both whole-class and individual goals
A single form of assessment is often used	Students are assessed in multiple ways

Source: Metropolitan Center for Urban Education, New York University²⁴

Broadly, differentiated instruction provides different pathways (e.g., readings, activities, processes, grouping arrangements) that students may complete to understand a concept or develop a skill.²⁵ Frequently, differentiation leverages flexible grouping procedures to accommodate students' strengths and weaknesses as they are relevant to the target learning outcomes. However, differentiation also uses whole class and individualized instruction to expose students to varied avenues for learning.²⁶ Moreover, differentiation may encompass the following, as determined by teachers:²⁷

- **Multiple Means of Representation:** Using a variety of methods to present information, provide a range of means to support.
- **Multiple Means of Action and Expression:** Providing students with alternative ways to act skillfully and demonstrate what they know.
- **Multiple Means of Engagement:** Tapping into students' interests by offering choices of content and tools and motivating them by offering adjustable levels of challenge.

²⁴ Figure text quoted verbatim, with minor adaptations, from: "Culturally Responsive Differentiated Instructional Strategies," Op. cit., p. 5.

²⁵ "Differentiation," Op. cit.

²⁶ Tomlinson, "How to Differentiate Instruction in Academically Diverse Classrooms (3rd Edition), Chapter 1: What Differentiated Instruction Is—and Isn't," Op. cit.

²⁷ Bulleted text quoted verbatim, with minor adaptations, from: "Universal Design for Learning." Teaching Excellence in Adult Literacy | U.S. Department of Education, 2010. p. 1. https://lincs.ed.gov/sites/default/files/2_TEAL_UDL.pdf

At the same time, differentiated instruction requires data to inform teacher practice, necessitating assessments which should also be differentiated.²⁸ Essentially, "differentiated instruction is a process where educators vary the learning activities, content demands, modes of assessment, and the classroom environment to meet the needs and support the growth of each child," as determined by assessment data.²⁹ Thus, teachers should use a variety of assessment types at different points in the learning process to acquire the necessary information to plan and deliver impactful instruction.³⁰

²⁸ Gibson, V. "Differentiating Instruction and Practice: Practical Steps for Implementation." 6/1/10. Center for Development and Learning. <https://www.cdl.org/articles/differentiating-instruction-and-practice/>

²⁹ "Why Differentiation of Instruction Now?" Op. cit., pp. 2–3, 11.

³⁰ "Differentiated Instruction." Teaching Excellence in Adult Literacy | U.S. Department of Education, 2010. https://lincs.ed.gov/sites/default/files/5_TEAL_Differentiated_Instruct.pdf

SECTION II: INSTRUCTION AND ASSESSMENT

In this section, Hanover and ULEAD explore best practices for differentiation in instructional planning and delivery as well as student assessment.

DIFFERENTIATED INSTRUCTION

Differentiated instruction requires teachers to consider and utilize multiple teaching approaches and student grouping strategies within the context of a single lesson in order to plan and deliver high-quality instruction to all students, as shown in Figure 2.1 on the following page.³¹ Teachers practicing differentiated instruction center their planning and delivery on students' current levels of readiness, interests, and learning profiles (e.g., needs, learning styles) to build multiple pathways to achieve defined learning outcomes and meet established content standards (see Figure 1.2 on p. 10).³² In planning differentiated instruction and designing accompanying materials, teachers should be mindful of several important elements that are essential to successful differentiation:³³

- **Respectful Tasks:** Students come to school seeking affirmation, contribution, challenge, power, and purpose. In a differentiated classroom, students often work on different tasks simultaneously, but regardless of which task a student is assigned or selects, it should be respectful, challenging, interesting, and worthwhile.
- **Quality Curricula:** High-quality, differentiated curricula begin with identifying the essential understandings that are meaningful, intriguing, and thought-provoking to allow students to see the relevance of what they are studying to other subjects and the world around them.
- **Teaching Up:** "Teaching up" means raising the "ceiling" for all students. All students should be working at a level of complexity just beyond their individual comfort levels. By providing each student with reasonable levels of challenge and scaffolding, they learn that hard work results in successful growth.
- **Flexible Grouping:** Students should work in a variety of arrangements: small groups with students of similar readiness, interests, or learning profiles; small groups with students of different readiness, interests, or learning profiles; with a partner of similar readiness, interests, or learning profiles; with a partner of different readiness, interests, or learning profiles; individually; or as a whole class. Grouping assignments may be selected by the teacher, the student, or randomly.
- **Continual Assessment:** Assessment steers instruction. Pre-assessing students before or at the start of a unit helps determine readiness in relation to target goals and interests related to content. During a unit, formative assessments guide instructional planning in progress. Both formative and summative assessments can be differentiated based on readiness, interests, and learning profiles, but all variations of the summative assessment must allow students to demonstrate what they have learned in reference to outlined learning objectives.

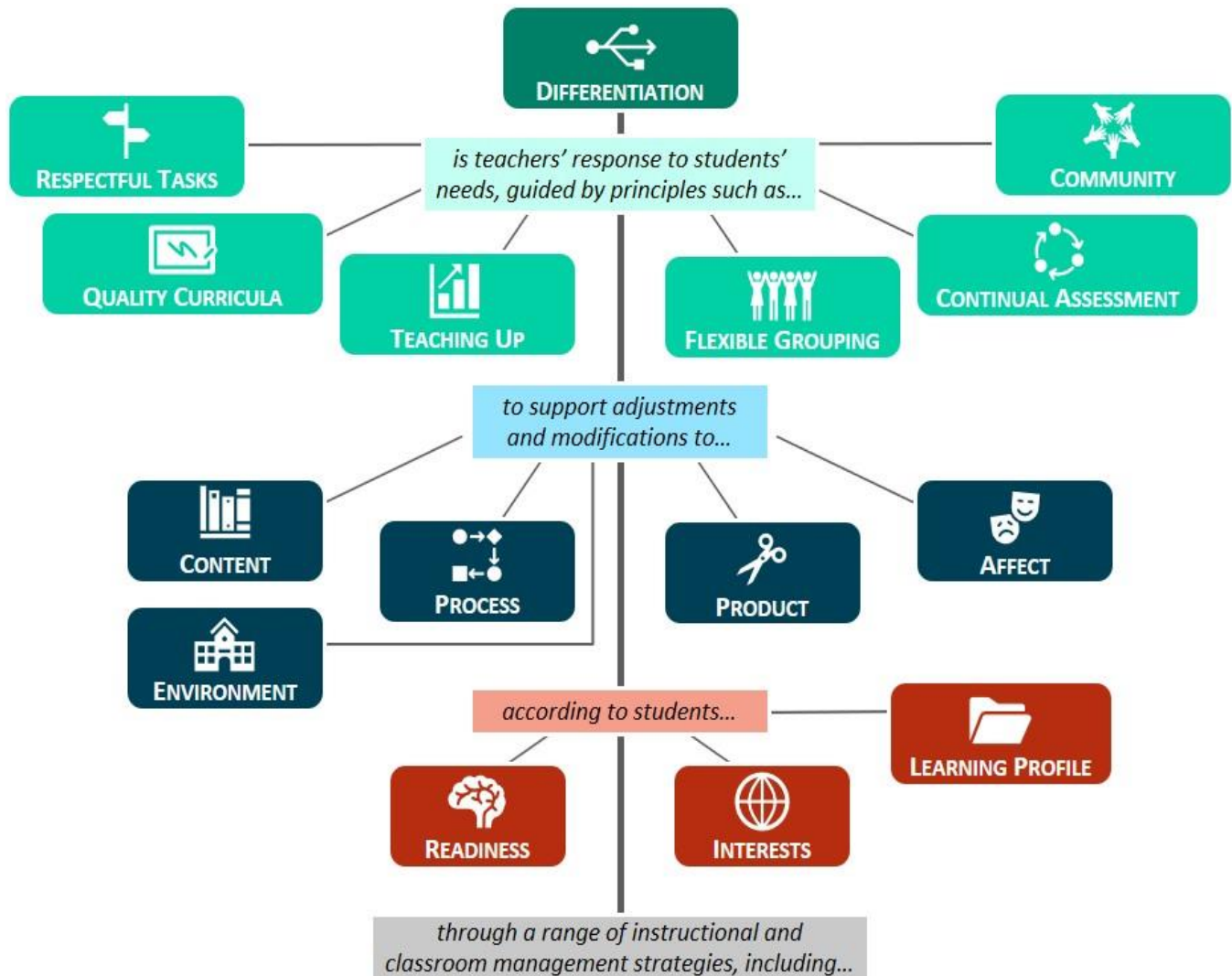
³¹ "Reach Every Student Through Differentiated Instruction," Op. cit., p. 9.

³² Tomlinson, "How to Differentiate Instruction in Academically Diverse Classrooms (3rd Edition), Chapter 1: What Differentiated Instruction Is—and Isn't," Op. cit.

³³ Bulleted text quoted verbatim, with minor adaptations, from: "What Is Differentiated Instruction?" Differentiation Central | University of Virginia, 2016. <http://differentiationcentral.com/what-is-differentiated-instruction/>

- Community:** The teacher should focus on building a learning community where students feel safe, accepted, and supported. Students have a voice in how the community works and take responsibility for identifying and solving problems in the classroom.

Figure 2.1: Concept Map for Differentiating Instruction








- | | | |
|---|---|---|
| <ul style="list-style-type: none"> Jigsaw Taped material Anchor activities Varying organizers Varied texts Varied supplements Literature circles | <ul style="list-style-type: none"> Tiered lessons Tiered centers Tiered products Learning contracts Small-group instruction Group investigations Independent study | <ul style="list-style-type: none"> Questioning strategies Interest centers Interest groups Varied homework Compacting Varied journal prompts Complex instruction |
|---|---|---|

Source: Differentiation Central and Association for Supervision and Curriculum Development³⁴

³⁴ Figure text quoted verbatim, with minor adaptations, from: [1] "Differentiation Model." Differentiation Central | University of Virginia, 2016. <http://differentiationcentral.com/model/> [2] Tomlinson and Allan, "Leadership for

Teachers should evaluate lesson design elements which allow for the greatest degree of modification and adaptability. This will help them move away from a singular instructional plan tailored toward a specific end goal to a flexible, multi-faceted instructional plan that allows students to pursue one of several pathways toward the specified end goal.³⁵ Specifically, teachers must consider modifications to a given lesson's content, processes, and products, and should also consider student affect and the learning environment in order to meet students' specific learning needs (see Figure 2.2).³⁶ Likewise, teachers must make intentional decisions regarding what and how they are going to teach in order to develop and execute several viable pathways that concentrate on those concepts and skills students must learn to achieve outlined learning objectives.³⁷

Figure 2.2: Lesson Elements Which Teachers Can Differentiate

ELEMENT	DESCRIPTION
 Content	Content refers to the knowledge, understanding, and skills that students need to learn. While learning goals should nearly always remain the same for all students in the differentiated classroom, teachers can differentiate the methods students use to access content, the ways they present content, and the scaffolding they provide to students.
 Process	Process refers to how students learn. Differentiating process is all about application based on the content (e.g., practicing new strategies, asking questions, making mistakes). Thus, teachers should allow students to work at different speeds, with different supports, in different groupings, and using different modalities.
 Product	Products are the performances or assignments students complete to demonstrate their learning during or following a period of instruction. Teachers may offer students different options to display their learning relative to outlined learning objectives, or they can allow students to propose a viable product that indicates their level of learning.
 Affect	Affect refers to students' emotional needs, feelings, and perspectives on learning. Because students' emotions and life experiences influence their identity, motivation, and collaborative capabilities, teachers should plan tasks that leverage students' affect and group them with other students in a way that maximizes their chances for success.
 Environment	Learning environments can greatly impact students' comfortability in the classroom and motivation to learn. Thus, teachers should consider modifications to the physical layout of classrooms to better facilitate learning. Likewise, teachers should establish a climate of respect, safety, and security to reduce distractions and promote comfortability.

Source: Association for Supervision and Curriculum Development³⁸

Differentiating Schools and Classrooms: Chapter 1, Understanding Differentiated Instruction: Building a Foundation for Leadership," Op. cit.

³⁵ Tomlinson, C.A. and S.D. Allan. "Leadership for Differentiating Schools and Classrooms: Chapter 10. Planning for the 'What' and the 'How' of Differentiation." Association for Supervision and Curriculum Development, December 2000. <http://www.ascd.org/publications/books/100216/chapters/Planning-for-the-%E2%80%9CWhat%E2%80%9D-and-the-%E2%80%9CHow%E2%80%9D-of-Differentiation.aspx>

³⁶ "Key Elements of Differentiated Instruction." Association for Supervision and Curriculum Development, 2011. p. 1. https://pdo.ascd.org/LMSCourses/PD110C115M/media/DI-Intro_M4_Reading_Key_Elements.pdf

³⁷ Heacox, D. and C.A. Strickland. "Differentiating Instruction in the Regular Classroom: How to Reach and Teach All Learners." Free Spirit Publishing, Inc., 2012. pp. 10–11. <https://www.freespirit.com/files/original/Differentiating-Instruction-Regular-Classroom-preview-1.pdf>

³⁸ Figure adapted from: [1] "Key Elements of Differentiated Instruction," Op. cit., pp. 1–4. [2] Tomlinson, C.A. and T.R. Moon. "Assessment and Student Success in a Differentiated Classroom: Chapter 1, Differentiation: An Overview." Association for Supervision and Curriculum Development, September 2013. <http://www.ascd.org/publications/books/108028/chapters/Differentiation@-An-Overview.aspx>

SELF-ASSESSING DIFFERENTIATION⁴²

The CEEDAR Center at the University of Florida publishes the "Differentiated Instruction (DI) Self-Assessment" to help teachers evaluate their current capabilities around and commitment to differentiated instruction. This tool is available using the link below.



Differentiated instruction requires both teachers—and administrators—to collaborate on the development of curricula and teaching strategies that are diverse and inclusive to all learners. In order to diversify instruction through content, process, product, and environment, educators must make multilevel instructional decisions, develop resources and supports for low-ability students, consider the types of in-class supports that will be provided to students with documented disabilities and advanced talents, and create whole-class lessons that avoid the separation of students into working groups based on ability.³⁹ Taken further, teachers who effectively

differentiate instruction “also provide moment-by-moment adaptations [of lessons] to meet specific needs that become clear during instruction—needs that were not or could not be anticipated.”⁴⁰ Essentially, instructional planning is complex and requires a school-wide effort among faculty, administrators, and staff in order to fully adopt a differentiated approach to education.⁴¹

Teachers should also remain mindful of the value of active learning, hands-on experiences, multi-sensory representations, collaborative learning, and real-world conceptual applications when planning for differentiated instruction.⁴³ On the following page, Figure 2.3 displays a list of widely recognized approaches that can be used to support differentiation, though it is not all-inclusive.

³⁹ Lawrence-Brown, D. “Differentiated Instruction: Inclusive Strategies for Standards-Based Learning That Benefit the Whole Class.” *American Secondary Education*, 32:3, 2004. p. 37.

<http://mdestream.mde.k12.ms.us/sped/toolkit/articles/Differentiation/Lawrence-Brown%20ASE%202004%20DI%20scholarly.pdf>

⁴⁰ Parsons, S.A., S.L. Dodman, and S.C. Burrowbridge. “Broadening the View of Differentiated Instruction.” *Phi Delta Kappan*, 95:1, September 2013. p. 40.

https://www.researchgate.net/profile/Seth_Parsons2/publication/267099116_Broadening_the_view_of_differen_tiated_instruction/links/5445e0d10cf2f14fb80f074b.pdf

⁴¹ [1] Tomlinson, C.A. “Leadership for Differentiated Classrooms.” AASA | American Association of School Administrators. <http://aasa.org/SchoolAdministratorArticle.aspx?id=14956> [2] Holloway, J.H. “Preparing Teachers for Differentiated Instruction.” *Educational Leadership*, 58:1. <http://www.ascd.org/publications/educational-leadership/sept00/vol58/num01/-Preparing-Teachers-for-Differentiated-Instruction.aspx>

⁴² “What Is Differentiated Instruction (DI) Self-Assessment?” CEEDAR Center, University of Florida. <http://ceedar.education.ufl.edu/wp-content/uploads/2016/11/FIN-DI-Self-Assessment-Tool-ns.pdf>

⁴³ Lawrence-Brown, D. “Differentiated Instruction: Inclusive Strategies for Standards-Based Learning That Benefit the Whole Class.” *American Secondary Education*, 32:3, 2004. p. 39.

<http://mdestream.mde.k12.ms.us/sped/toolkit/articles/Differentiation/Lawrence-Brown%20ASE%202004%20DI%20scholarly.pdf>

Figure 2.3: Sample Instructional Approaches to Support Differentiation

STRATEGY	DESCRIPTION
Cooperative Learning	Cooperative learning, or flexible grouping, uses small groups to have students work together to maximize their learning. Students work in small groups after receiving instruction from the teacher. They then work through an assignment until all group members successfully understand and complete it. Students can be organized into groups in several ways, including by interests and learning styles.
Project-Based Learning	In project-based learning, students explore real-world problems. Teachers facilitate this exploration, helping students frame questions, designing meaningful tasks, coaching knowledge development and social skills, and assessing student learning.
Multiple Intelligences	Multiple intelligences incorporates a broad spectrum of instructional techniques to meet the needs of students based on their learning styles (e.g., visual-spatial, bodily-kinesthetic). Additional instructional aids (e.g., outlines, manipulatives) are provided to students, especially those with fewer skills or lower academic readiness.
Learning Stations	Learning stations contain tasks that address different challenges based on student interests, readiness levels, learning styles, or a combination of all three. Stations may be a combination of assigned and free choice tasks. They do not have to be completed in any particular order, but they need to be completed within a given timeframe.

Source: Multiple⁴⁴

ASSESSMENT STRATEGIES

Frequent use of assessments is an essential prerequisite for driving how instruction is differentiated to adhere to students’ preferred learning styles, interests, and abilities.⁴⁵

Assessments can be implemented before, during, and after instruction to monitor student progress relative to differentiated instruction.⁴⁶ Importantly, pre-, formative, and summative assessments create the foundation from which teachers can differentiate classroom instruction to better support students, as described in the "Spotlight" on the following page.

⁴⁴ Figure adapted from: [1] De Jesus, O.N. "Differentiated Instruction: Can Differentiated Instruction Provide Success for All Learners?" *National Teacher Education Journal*, 5:3, Summer 2012. pp. 7–10. Accessed via EBSCOhost. [2] King-Shaver, B. "Differentiated Instruction: The New and Not So New." *California English*, 13:4, April 2008. p. 7. Accessed via EBSCOhost. [2] Lawrence-Brown, "Differentiated Instruction: Inclusive Strategies for Standards-Based Learning That Benefit the Whole Class," Op. cit., p. 41.

⁴⁵ "Culturally Responsive Differentiated Instructional Strategies," Op. cit., pp. 2, 4.

⁴⁶ Tomlinson, C.A., T.R. Moon, and M.B. Imbeau. "Assessment and Student Success in a Differentiated Classroom." Association for Supervision and Curriculum Development, 2015. p. 8. <http://www.ascd.org/ASCD/pdf/siteASCD/publications/assessment-and-di-whitepaper.pdf>



Spotlight: Assessment to Inform Differentiated Instruction

Teachers who understand that teaching and learning approaches must be a good match for students look for every opportunity to know their students better. They see conversations with individuals, classroom discussions, student work, observation, and formal assessments as ways to keep gaining insight into what works for each learner. What teachers learn becomes a catalyst for crafting instruction in ways that help every student make the most of their potential and talents.

In a differentiated classroom, diagnostic pre-assessment routinely takes place as a unit begins to shed light on students' particular needs and interests in relation to unit goals. Then, throughout the unit, teachers assess students' developing readiness levels, interests, and approaches to learning, systematically and in a variety of ways. Teachers use gathered data to design learning experiences based on the latest, best understanding of students' needs. Culminating products, or other means of summative assessment, take many forms, with the goal of finding a way for each student to most successfully share what they have learned over the course of the unit.

Source: Association for Supervision and Curriculum Development⁴⁷

Furthermore, **differentiated assessment also refers to offering students various formats for displaying their academic performance.** Flexibility in the work products and performances that students complete to demonstrate newly acquired knowledge or skills supports accurate evaluation of students' capabilities while also allowing students to leverage their strengths "to meet the same rigorous standards in different ways."⁴⁸ Reflecting guidance related to differentiated instruction, differentiated assessment may also leverage modifications to the products that students create to display content mastery at various junctures within a given instructional sequence.⁴⁹

By differentiating assessments, teachers provide students with various avenues to express their skills and abilities. Teachers, therefore, should consider a multitude of modalities (e.g., visual, auditory, kinesthetic) and arrangements (e.g., individual, group) for students to complete formative and summative assessments.⁵⁰ However, teachers must also ensure that all available assessment options adhere to the outlined learning objectives or target content area standards and generate relevant, actionable information that can inform future cycles of differentiated instruction.⁵¹

On the following pages, Figure 2.4 and 2.5 describe the purposes for and provide samples of pre-, formative, and summative assessments that teachers can use in their classrooms. Importantly, these assessments can be differentiated themselves with the context of a given

⁴⁷ Spotlight text quoted verbatim, with minor adaptations, from: Tomlinson, "How to Differentiate Instruction in Academically Diverse Classrooms (3rd Edition), Chapter 1: What Differentiated Instruction Is—and Isn't," Op. cit.

⁴⁸ Reeves, D.B. "From Differentiated Instruction to Differentiated Assessment." *ASCD Express*, 6:20, 2011. <http://www.ascd.org/ascd-express/vol6/620-reeves.aspx>

⁴⁹ Thakur, K. "Differentiated Instruction in the Inclusive Classroom." *Research Journal of Educational Sciences*, 2:7, November 2014. p. 12. http://www.isca.in/EDU_SCI/Archive/v2/i7/2.%20ISCA-RJEdus-2014-025.pdf

⁵⁰ "Differentiated Instruction: Maximizing the Learning of All Students, Page 7: Differentiate Product." IRIS Center, Vanderbilt University. <https://iris.peabody.vanderbilt.edu/module/di/cresource/q2/p07/#content>

⁵¹ Tomlinson, C.A. and T.R. Moon. "Assessment and Student Success in a Differentiated Classroom: Chapter 2, Assessment and Differentiation: A Framework for Understanding." Association for Supervision and Curriculum Development, September 2013. <http://www.ascd.org/publications/books/108028/chapters/Assessment-and-Differentiation@-A-Framework-for-Understanding.aspx>

instructional sequence while also generating actionable insights to inform differentiation of subsequent instruction.

Figure 2.4: Differentiable Assessment Types that Can Also Inform Differentiated Instruction

PURPOSES	SAMPLE ASSESSMENTS
Pre-Assessment <i>Before a Lesson or Unit</i>	
<ul style="list-style-type: none"> ▪ To assess students’ prior knowledge, skills, and understanding ▪ To determine students’ interests ▪ To ascertain students’ learning needs ▪ To inform teachers’ use of instructional strategies or practices ▪ To help teachers assign students to groups 	<ul style="list-style-type: none"> ▪ Standardized tests from prior year ▪ Unit pre-tests ▪ Academic records ▪ Self-report measures ▪ KWL charts ▪ Interest or interest inventories ▪ Journal entries ▪ Teacher observations
Formative Assessment <i>During a Lesson or Unit</i>	
<ul style="list-style-type: none"> ▪ To determine what students understand ▪ To determine students’ needs ▪ To inform teachers of needed instructional adjustments ▪ To help teachers design lessons ▪ To help teachers assign students to different groups 	<ul style="list-style-type: none"> ▪ Small-group or whole-class discussion ▪ Journal or portfolio entries ▪ Exit cards ▪ Homework assignments ▪ Quizzes and tests ▪ Student conferences ▪ Concept maps
Summative Assessment <i>After a Lesson or Unit</i>	
<ul style="list-style-type: none"> ▪ To determine what the students have learned ▪ To aid teachers in assigning grades ▪ To assist teachers in refining instruction for the following year 	<ul style="list-style-type: none"> ▪ Chapter or unit tests ▪ Projects ▪ Reports (written or oral) ▪ PowerPoint presentations ▪ Demonstrations

Source: IRIS Center, Vanderbilt University⁵²

⁵² Figure text quoted verbatim, with minor adaptations, from: “Differentiated Instruction: Maximizing the Learning of All Students, Page 2: General Principles,” Op. cit.

Figure 2.5: Assessment Formats

Authentic Assessment <ul style="list-style-type: none">•An analysis of the learner's skills, abilities, and strengths through a variety of observable indicators. This includes skill performances, purposeful activities, portfolios, demonstrations, hands-on experiences, and projects.
Formal Assessment <ul style="list-style-type: none">•Tools that collect specific, observable information. This data may be derived from content knowledge, skills and abilities, or behavior observations. Tests, pop quizzes, checklists, rubrics, and Likert scales are examples of formal assessment tools.
Formative Assessment <ul style="list-style-type: none">•Ongoing assessment before, during, and after instruction to identify needs and provide continuous feedback so the student learns more effectively. Usually only selected results from identified formative assessments are averaged and included in a formal grade.
Informal Assessments <ul style="list-style-type: none">•Tools that gather information from spontaneous, gut reactions for the moment. Response cards and hand signals that indicate individual knowledge of a topic or skills are examples of informal assessments.
Ipsative Assessment <ul style="list-style-type: none">•Describes a form of metacognitive self-assessment by which the learner compares a present performance with a prior performance to measure improvement and address needs.
Summative Assessment <ul style="list-style-type: none">•Assessments that occur at the end of a period of instruction to measure achievement. The results are usually used as evidence for a grade, for reporting to parents, to identify award recipients, or to make placement decisions.

Source: Chapman and King; *Differentiated Assessment Strategies: One Tool Doesn't Fit All*⁵³

⁵³ Chapman, C. and R. King. *Differentiated Assessment Strategies: One Tool Doesn't Fit All*. Corwin Press, 2005. pp. xx–xxi.