Definitions Related to Differentiated Instruction and Strategies for Instructing Gifted Students

Acceleration or Accelerated Instruction: is an educational strategy, which provides opportunities for students to achieve educational goals at a more rapid pace or provides for rapid achievement of educational goals. Acceleration can be within a grade level curriculum (teacher decision) or across grade level curricula.

Examples of acceleration – dual enrollment, early graduation, curriculum compacting, subject matter acceleration, individually paced instruction, distance learning.

Grade Level Acceleration: this practice is employed on individual identified needs and is designed on a case-by-case basis per approval of a collaborative decision with teacher, principal, gifted services supervisor, early childhood supervisor, and/or curriculum specialists committee that reports to the Assistant Superintendent for Curriculum & Instruction. (PIP 20-3, Program Differentiation)

Anchor Activity: is a strategy for differentiation instruction that provides for meaningful ongoing activities to which students automatically move when they have completed an assigned task. The anchor activity can occur throughout a unit, a grading period, or longer.

The purpose of anchor activities:

- to provide students with meaningful work once they have finished an assignment or project ahead of time
- to provide meaningful work at the beginning of each class as might be appropriate
- to provide meaningful work for students when they are "stumped" and waiting for teacher assistance
- to provide ongoing tasks tied to the curriculum and instruction

Assessment: is the complex system of

- collecting data to better understand the current *knowledge* (facts), *understandings* (principles and concepts), and *skills* (e.g. literacy) of students
- collecting data to better understand the *readiness* (prior mastery of knowledge/understandings/skills), *interests* (a student's curiosity and passion which "hooks" learners in wanting to know, understand, or do more), and *learning profiles* (preferred learning styles or intelligences) of students (Tomlinson)

Assessment is an ongoing means of understanding how to better modify instruction to match the learners' needs.

Types of assessment include:

- Pre-assessment is any method, strategy, or process used to determine a student's current level of readiness (prior mastery of knowledge, understandings, and skills) or interest (what "hooks" the students in wanting

to know, understand, or do more) which allows the teacher to meet students "where they are." (Finding out what students know: Examples: pre-test, inventory, KWL, checklist, observation, self-evaluation, questioning, etc.)

- Formative Assessment is when formative data are collected throughout a unit of instruction to help make "mid lesson unit" corrections prior to the graded Summative Assessment. (Informing teachers of what students are learning during instruction. Examples: formative test, peer evaluation, observation, questioning, exit card, portfolio check, quiz, journal entry, self-evaluation, etc)
- Summative Assessment is a means to determine a student's mastery of knowledge (facts), understandings (concepts and principles), and skills used for the purpose of a final grade, decision, or report that causes teachers to align formative and pre-assessments with the "end in mind." (Making certain of what students have Known or have learned: Examples: unit test, benchmark test, performance task, product/exhibit, demonstration, portfolio review, etc.)

Authentic Assessment: is the practice of collecting data to better understand the abilities of a student by presenting real-world challenges that require the application of relevant knowledge, understandings, and skills.

Basic Elements:

- requires students to develop responses rather than select from predetermined options
- elicits higher order thinking in addition to basic skills
- directly evaluates holistic projects
- synthesizes with classroom instruction
- uses samples of student work (portfolios) collected over an extended time period
- stems from clear criteria made known to students
- allows for the possibility of multiple human judgments
- relates more closely to classroom learning
- can be facilitated by technology

Choice in Assignments: is a strategy for differentiating instruction that provides for varying assignments which the teacher can provide and the student can choose/select. All the assignments are targeted toward standards to be learned yet allow for student choice depending on student interest.

Compacting: is a strategy for differentiating instruction that provides a three-step process which (a) assesses what a student knows about material to be studied and what the student still needs to master, (b) plans for learning what is *not* known and excuses student from what *is* known, and (c) plans for freed-up time to be spent in enriched or accelerated study. The student is given reduced amounts of introductory activities, drill, review, and so on such that the time saved may be used to go into more depth within the curriculum

Content: is what a student should know, understand, and be able to do as a result of a given unit of instruction, subject, or course. In differentiated instruction, the teacher selects levels of content after diagnosing student readiness through pre-assessment.

Cubing: is a strategy for differentiation instruction that is based on student readiness (prior mastery of knowledge, understandings, and skills) and interest (what "hooks" the student in wanting to know, understand, or do more). Each six-sided cube carries instructional tasks. The six sides reflect the six levels of Bloom's Taxonomy.
Possible uses for this strategy include:

- introduce new concepts
- build interest in a new concept
- informally assess students
- help students see relevance of a concept
- review concepts, and
- help students thin creatively about concepts

Differentiation or Differentiated Instruction (DI): This instructional approach recognizes that all students must master a common body of knowledge and skills but each student can gain mastery of the intended curriculum in an approach most appropriate to his learning needs.
Differentiation relates to *content* (what students learn), *process* (how students learn), and *product* (how students demonstrate what they've learned) in anticipation of and response to student differences in *readiness* (prior mastery of knowledge, understandings, and skills), *interest* (a student's curiosity and passion that "hooks" the learner into wanting to know, understand, or do more), and *learning profile* (how the student prefers to learn) (Tomlinson).
The teaching philosophy and mindset of DI is that a teacher acts responsively to a learner's needs, i.e. meeting the student where he/she is the curriculum.

Enrichment: is the use of instructional materials and/or activities that are an extension of the regular classroom material.

Equalizer: is a tool/guide for planning differentiated lessons similar to using the equalizer buttons on a stereo or CD player as the teacher takes into account various student needs regarding structure, pace, complexity, cognitive level, etc. (See Tomlinson, C.A. How to Differentiate Instruction in Mixed-Ability Classrooms, 2nd Ed., 20010 ASCD, p. 47)

- Foundational to Transformational
- Concrete to Abstract
- Simple to Complex
- Single Facet o Multiple Facets
- Small Leaps to Great Leaps
- More Structured to More Open
- Less Independence to Greater Independence
- Slow to Quick

Flexible Grouping: is a strategy for differentiating instruction that provides for students to be a part of many different groups based on the match of the task to student readiness, interest, or learning profile.
Guidelines for flexible grouping:

- teacher should assign groups when the task is matched to individual readiness (prior mastery of knowledge, understandings, or skills) or students may need work with a variety of classmates
- teacher should create clear guidelines for group functioning taught in advance of group work and consistently reinforced
- teacher must ensure that all students have opportunities to work with students who are like themselves and dissimilar from themselves
- all students should learn to work cooperatively, collaboratively, and independently
- groups can be designed by the teacher with an intent instructional plan
- groups can also be student selected

Group Investigation: is a strategy for differentiating instruction that puts students in the active role of solving problems.
Procedure:

- the teacher presents students with a complex problem
- students must seek additional information, define the problem, locate and appropriately use valid resources, make decisions about solutions, pose a solution, communicate that solution to others, and assess the solution's effectiveness
- this strategy offers an opportunity to address readiness, interest, and learning profile

High-Level Questioning: is a strategy for differentiating instruction that provides for presentation of questions which draw on advanced levels of information, requires leaps of understanding, and challenges the thinking of all students.
Guidelines for teachers are to:

- require all learners to think at high levels
- require students to defend answers
- use open-ended questions
- use *Bloom's Taxonomy* to create various levels of questions
- differentiate questions as appropriate, being mindful and respectful of the need for all learners to be questioned at high levels

Independent Study: is a strategy for differentiating instruction that provides for a process by which student and teacher identify problems or topics of interest to the student to demonstrate his/her ability to apply knowledge (facts), understandings (concept and principles), and skills relative to a topic or problem.

At the high school level, a formal Independent Study can be developed as a course for credit with a formal proposal in the spring prior to the next school year.

The proposed Independent Study must be original research and may not supplant a course in the county's program of study. The Independent Study is an elective credit and earns a pass/fail grade. Specifics about the high school Independent Study are available from the director of counseling services.
Guidelines for Independent Study:

- builds on student interest
- satisfies curiosity
- requires student planning and research
- encourages independence
- requires highly motivated student
- allows in-depth work on topics
- provides opportunities for student to work with complex and abstract ideas

Individualized Education: is a set of teaching practices and a teaching philosophy which provides a basis for assessing where the student is relative to a unit of instruction. The teacher delivers instruction in a differentiated manner so as to appropriately remediate, enrich, and/or accelerate, while holding standards at grade level for all students.

Interdisciplinary Instruction: is a philosophy of teaching in which content is drawn from several subject areas to focus on a particular topic or theme. Effective interdisciplinary studies include the following elements:

- A topic that lends itself to study from several points of view.
- Two to five essential questions the teacher wants the students to explore.

Interest: is a student's curiosity or passion and one of the primary ways to differentiate instruction.

Learning Centers/Stations: is a strategy for differentiating instruction that provides for "centers" or "stations" or collections of materials that learners use to explore topics or practice skills. Tasks at the centers can be adjusted to students' readiness, interest, or learning profile.

Learning Contract: is a strategy for differentiating instruction that provides for an agreement between a student and teacher. It can take many forms but primarily it obligating the student to the performance of work according to agreed-upon specifications, i.e., what will be learned. How it will be learned, amount of time for learning, and how the work will be evaluated.

Guidelines for learning contract are to:

- match the skills to the readiness of the learner
- match the content to readiness, interest, and learning profile (learning styles, multiple intelligences, etc) of the student
- allow student choice, esp. in the content-based portions
- provide rules for contract in writing
- establish clear and challenging standards for success

- blend both skills and content-based learning in the contract
- vary the levels of independence and time span to match student readiness

The Learning Contract is a form of Independent Study. The accepted teacher practices of a learning contract are to:

- help students set realistic deadlines
- explain the role and function of contracts
- renegotiate the contract when it isn't working
- involve students gradually in contract development

Learning Profile: is a student's preferred manner for working or learning and is highly important to differentiating instruction. There are many instruments available to detect a student's preferred manner for working or learning (e.g., Howard Gardner's Multiple Intelligences, Dunn & Dunn's Learning Styles, etc.)

Multiple Intelligence: is a means by which teachers can address the interest and learning profile of students. Multiple intelligence theory recognizes the different ways to demonstrate intellectual ability as conceived by researcher Howard Gardner.

- Visual/Spatial - ability to perceive the visual such as exhibited by navigator, sculptor, artist, inventor, architect, interior designer, mechanic, engineer
- Verbal/Linguistic - ability to use words and language such as exhibited by poet, journalist, writer, teacher, lawyer, politician, translator
- Logical/Mathematical - ability to use reason, logic, and numbers such as exhibited by scientist, engineer, computer programmer, researcher, accountant, mathematician
- Bodily/Kinesthetic - ability to control body movements and handle objects skillfully such as exhibited by athlete, P.E. teacher, dancer, actor, firefighter, artisan
- Musical/Rhythmic - ability to produce and appreciate music such as exhibited by musician, disc jockey, singer, composer
- Interpersonal - ability to relate and understand others such as exhibited by counselor, salesperson, politician, business person
- Intrapersonal - ability to self-reflect and be aware of one's inner state of being such as exhibited by researcher, theorist, philosopher
- Naturalist - ability to understand, feel, and react positively to the world around as exhibited by naturalist, ecologist, etc.

Personalized Education: is the use of classroom and school practices which recognize the uniqueness of each student learner and thus provide for appropriate differentiated instruction suited to develop the whole person in mind, body, and personal interests.

Portfolio: is a collection of student work which help students set appropriate learning goals and evaluate their growth. Portfolios can help teachers and

parents reflect on student growth over time by focusing on readiness, interests, and learning profile.

Process: In differentiating instruction, process is the opportunity for students to make sense of content. Process differentiation is when a teacher selects activities based on student readiness, interest, and/or learning profile.

Problem-based Learning (PBL): is focused, experiential learning (minds-on, hands-on) organized around the investigation and resolution of messy, real-world problems. PBL curriculum provides authentic experiences that foster active learning, support knowledge construction, and naturally integrate school learning and real life; this curriculum approach also addresses state and national standards and integrates disciplines.

Product: In differentiating instruction, a product is how students demonstrate what they've learned. Teachers can provide choice in product based on student readiness, interest, and/or learning profile.

RAFT Assignment: is a strategy for differentiating instruction that helps students understand an audience of fellow writers, students, citizens, characters, etc. RAFT is an acronym that stands for Role (of the writer), Audience, Format, and Topic.

Readiness: In differentiating instruction, readiness is found by ascertain the student's prior mastery of knowledge (facts), understandings (concepts and principles), and skills relative to a unit of instruction, subject, or course. Assessing how well a student's knowledge, understanding, and skills match a topic or task is necessary to provide appropriate curriculum/instruction.

Remediation: are the instructional materials and activities that are designed to bring a student up to grade level performance within a given unit of instruction, subject, or course.

Respectful Tasks: are those that are interesting and engaging for every learner and which provide equal access to essential knowledge, understandings, and skills. It provides all students the opportunity to be challenged. Instructional assignments are on target and do not leave students without feelings of boredom or frustration.

Scaffolding: is a strategy for differentiating instruction that provides the support a student needs to succeed in challenging work. Scaffolding is the planning of student work and the presenting of materials from simple to complex in such a way as to build student mastery and, thus, skill confidence.

Technology Integration: is a seamless web of technology used during the course of classroom lessons meant to achieve student mastery of knowledge

(facts), understanding (concepts and principles), and skills as well as student "production" of knowledge.

Tiered Instruction: is a strategy for differentiating instruction that provides for the use of varied levels of activities to ensure that students explore ideas at a level that builds on their prior knowledge and prompts continued growth.

Guidelines for developing tiered instruction:

- select the concept, principle, or skill that is essential for understanding the topic
- think about the students who will be using the activity in terms of their readiness, interest, or learning profile
- create one activity that is interesting, requires high-level thinking and is clearly focused on the key concept, principle, or skill
- adapt the activity to provide different versions at different levels of difficulty
- to adapt activities, use Bloom's Taxonomy or Tomlinson's Equalizer,
- match the students to a version of the task based upon student readiness, interest, or learning profile
- tier assignment, activities, homework, learning centers, experiments, materials, assessments, writing prompts, etc.

Definitions adapted from:

Tomlinson, How to Differentiate in Mixed-Ability Classrooms, ASCD, 2nd Ed., 2001

Tomlinson, Differentiation in Practice, ASCD, 2003