Designing Effective Adaptations for All Students

Indiana Junior High School
Andrew Weaver
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Plans are nothing. Planning is everything.
- Dwight D. Eisenhower
Designing Effective Adaptations for All Students

Seven Essential Concepts

1. Students are not interchangeable parts.

2. All students can benefit from adaptations.
   - Your “lowest” student needs to be given respectful tasks tailored to his strengths.
   - Your “highest” student won’t grow until you give her something she can’t do. Then she becomes as needy as your lowest student.

3. Teachers adapt content, process, and product.
   - Content – what teachers teach (essential ideas, information, skills).
   - Process – how a student makes sense of, or comes to understand, the ideas, information, and skills.
   - Product – the assessments or demonstrations of what students have come to know, understand, and be able to do as a result of an extended sequence of learning. ¹

4. Teachers adapt based on students’ readiness, interest, and learning profile.
   - Readiness – a student’s knowledge, understanding, and skill related to a particular sequence of learning.
   - Interest – those topics or pursuits that evoke curiosity and passion in a learner.
   - Learning Profile – how a student learns best. ²

5. Less is more.
   - Mastering a few things beats covering many things.
   - Students in schools, classrooms, and educational systems that teach less and teach it better score higher on standardized measures than students in schools that seek coverage of massive amounts of information with little emphasis on understanding. ³

² Tomlinson, 1999 (p. 11).
Brain research suggests “teaching that is based on concepts and the principles that govern them, in contrast with teaching that is rooted solely or largely in facts, is essential.”

Simple equals smart. The use of well-designed children’s books in all grades is a helpful and engaging way to make complex ideas approachable.

6. Present relevance is essential.

In a healthy classroom, what is taught and learned

- is relevant to students; it seems personal, familiar, connected to the world they know;
- helps students understand themselves and their lives more fully now, and will continue to do so as they grow up;
- is authentic, offering “real” history or math or art, not just exercises about the subject;
- can be used immediately for something that matters to students, and makes students more powerful in the present as well as in the future.

7. Fair isn’t always equal.

Fair is not giving each student the same thing. Fair is giving each student what he or she needs to succeed. If appropriate adaptations are not used, students could be unfairly penalized for having learning differences.

In a healthy classroom, the teacher’s assessment strategies meet the following criteria:

- Focus is on documenting individual student growth over time, rather than comparing students with one another.
- Emphasis is on students’ strengths (what they know) rather than weaknesses (what they don’t know).
- Consideration is given to the learning styles, language proficiencies, cultural and educational backgrounds, and grade levels of students.

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5 Tomlinson, 1999 (pp. 30-31).
Developing a Tiered Activity

Before designing an activity, identify the essential and enduring learning goals – what students need to know, understand, and do (KUD). Then identify students’ unique needs based on readiness range, interests, learning profile, and talents. Design an appropriate summative assessment according to students’ individual needs. Then design short diagnostic pre-assessments (from the summative assessment). After this, identify frequent and plentiful formative assessments that will guide instruction (reflecting subsets of the KUD).

Activities are based on information gathered from the pre-assessments. Provide a menu of differentiated options, asking, “What experiences do I need to provide these particular students in order for them to achieve 100% mastery on every assessment?”

Dr. Tomlinson maps out a plan for “tiering” an activity:

1. Select the activity organizer (key concept or skill).

2. Think about your students or use data from assessments: readiness range (skills, reading, thinking, information); interests; learning profile; talents.

3. Create an activity that is interesting, high level, and causes students to use a key skill to understand a key idea.

4. Chart the complexity of the activity on a “ladder graph” from low skill or complexity to high skill or complexity.

5. Clone the activity along the ladder, as needed to ensure challenge and success for your students, assessing in terms of

   ✓ Materials – basic to advanced

   ✓ Form of expression – from familiar to unfamiliar

   ✓ From experience – from personal experience to removed from personal experience.

6. Match a version of the task to a student based on student profile and task requirements.

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7 Tomlinson, 1999 (p. 85).
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## Modifications & Accommodations

<table>
<thead>
<tr>
<th>Modifications</th>
<th>Accommodations</th>
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<tbody>
<tr>
<td>Modifications are changes made to the content, instruction or learning environment that change what the student is expected to learn.</td>
<td>Accommodations are changes made to the instruction or learning environment that do not change what the student is expected to learn.</td>
</tr>
<tr>
<td>➢ Refer to changes made to curriculum expectations in order to meet the needs of the student.</td>
<td>Accommodations:</td>
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<tr>
<td>➢ Modifications are made when the expectations are beyond the student’s current skill level.</td>
<td>1. Presentation</td>
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<tr>
<td>➢ Instruction is based on the student’s skills.</td>
<td>2. Response</td>
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<td>➢ Partial completion of requirements</td>
<td>3. Setting</td>
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<td>➢ Use of different instructional materials to support the general education curriculum</td>
<td>4. Timing and Scheduling</td>
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<tr>
<td>✓ Student learns 3 vocabulary words while other students learn 10 vocabulary words.</td>
<td>Presentation Accommodations – adjust the presentation of material</td>
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<tr>
<td>✓ Alternate book of same story at different reading level</td>
<td>✓ Read aloud directions and test items</td>
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<td>✓ Student learns long-division with one divisor while other students work with double-digit division.</td>
<td>✓ Braille or large print</td>
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<td>✓ Student does not have to answer the essay questions on tests.</td>
<td>✓ Books on tape or use of audio recordings</td>
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<td>✓ Use of visual aids</td>
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<td></td>
<td>✓ Chunking material or fewer problems on a page</td>
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8 See “Adaptations to Increase Student Success” by Lisa Brunschwyler and Kimberly Jenkins. www.pattan.net.
## Examples of Adaptations

<table>
<thead>
<tr>
<th>Topic &amp; Student Need</th>
<th>ENGLISH: Students at various readiness levels will construct several poems using specific patterns.</th>
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<tbody>
<tr>
<td>Adaptation of Process and Product</td>
<td>Most students create their poem on a blank page “from scratch.” Some students receive a template page to complete their poems along with a list of nouns and adjectives from which they can draw if they get stuck. A few students who are at “early readiness levels” are given sentence/phrase strips that they can arrange into a poem based on an assigned pattern.</td>
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<tr>
<th>Topic &amp; Student Need</th>
<th>SCIENCE: Students at various readiness levels identify types of clouds.</th>
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<td>Adaptation of Process and Product</td>
<td>Most students identify five different types of clouds from given pictures. In writing, they explain how they are different from each other. Advanced students label the five basic cloud types in given pictures, then use their understanding of those types to identify clouds in given pictures that seem to be made up of more than one type. They explain their thinking in writing. Early readiness level students match the type of cloud in the picture with its name. They may explain their thinking either in writing or orally.</td>
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<tr>
<th>Topic &amp; Student Need</th>
<th>MATH: Students need different amounts of time and support to master the concept they are studying.</th>
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<td>Adaptation of Learning Environ. &amp; Process Based on Readiness</td>
<td>The teacher does some whole-class teaching every few days. In between, students sometimes work independently at learning centers, sometimes with peers on targeted tasks, and sometimes with the teacher. The teacher adjusts the rotation so students get the amount and kind of work and support they need.</td>
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<tr>
<th>Topic &amp; Student Need</th>
<th>MATH: Students in pre-algebra class have varied interests and often have difficulty understanding why they are learning what they are learning in math.</th>
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<tr>
<td>Adaptation of Content &amp; Product Based on Student Interest</td>
<td>Based on data from a survey, “the teacher uses examples from sports, business, medicine, technology, and other fields to illustrate how formulas are used. She also guides students in interviewing people engaged in a range of jobs and hobbies to find out how they use formulas in their work and in sharing those examples with others in the class.</td>
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10 Tomlinson, 2003 (p. 8).
12 Tomlinson, 2003 (p. 7).
### Designing Effective Adaptations for All Students

<table>
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<tr>
<th>Topic &amp; Student Need</th>
<th>ART: Students in Art I vary greatly in skill and experience with art as they enter the class.</th>
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<tbody>
<tr>
<td></td>
<td>Adaptation of Product Based on Student Readiness: The teacher uses rubrics that specify key skills on which students need to work as well as describing what ascending proficiency looks like for each skill. Each student works with the teacher to set proficiency goals for products based on the student’s current work. Grading is based on both individual growth and grade-level benchmarks.</td>
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<tr>
<th>Topic &amp; Student Need</th>
<th>ENGLISH: Readiness levels vary widely among students who will be asked to demonstrate an understanding of the plot profile of a novel.</th>
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<tbody>
<tr>
<td></td>
<td>Adaptation of Process and Product Based on Student Readiness: Brake Level Task: Draw and correctly label the plot profile of a novel. Advanced Level Task: Draw and correctly label the plot profile of a novel and explain how the insertion or deletion of a particular character or conflict will impact the profile’s line, then judge whether this change would improve or worsen the quality of the story. Early Readiness Level Tasks (match to student needs):</td>
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<td></td>
<td>• Draw and correctly label the plot profile of a short story.</td>
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<td></td>
<td>• Draw and correctly label the plot profile of a single scene.</td>
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<td></td>
<td>• Given a plot profile of a novel, correctly label its parts.</td>
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<td></td>
<td>• Given a plot profile with mistakes in its labeling, correct the labels.</td>
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<table>
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<tr>
<th>Topic &amp; Student Need</th>
<th>MATH: Mrs. Gentile’s students vary in readiness levels and are being assigned homework based on instruction in class.</th>
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<td></td>
<td>Adaptation of Content, Process, and Product Based on Student Readiness: Mrs. Gentile asks students to complete an exit ticket. She differentiates the homework based on how students perform on the exit ticket. (Modification of product based on student readiness.)</td>
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<tr>
<td></td>
<td><strong>Exit Questions:</strong></td>
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<tr>
<td></td>
<td>A) Order these numbers small to big: 0.35, 0.035, 0.53, 0.053</td>
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<tr>
<td></td>
<td>B) Compare these numbers: 32.980 _____ 32.890000 8.403 _____ 8.0884</td>
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<tr>
<td></td>
<td>Homework: p. 150 #7-14 and # 23-25, 33 OR p. 150-151 #7, 23, 33-38</td>
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13 Tomlinson, 2003 (p. 8).
14 Wormeli, 2006 (p. 60).
15 Tomlinson, 2003 (p. 8).
What about homework and grades?

Learning Support teachers most productively spend their e-Time and Flex (Resource) periods addressing success skills and high-priority deficit areas – not being homework police. In order to facilitate this, it’s important for regular education teachers to limit homework:

- Is this really necessary?
- Will the student need to know this in 20 years?
- Can the student complete this assignment independently in a reasonable amount of time? What takes typical students 10 minutes to complete might take a struggling student 30 minutes or longer to complete.

Practice does not make perfect. Struggling students often do homework incorrectly and, as a result, reinforce bad habits.

Avoid grading student practice (homework). Homework is never to learn material the first time around. Don’t give homework unless students have already mastered the concepts. Homework is for practice, reinforcement, and extension. Teachers must give students feedback on their homework, but this does not need to be in the form of a letter grade.\(^{16}\)


A grade should represent a clear and accurate indicator of what a student knows and is able to do – mastery. Therefore, it’s best to avoid incorporating nonacademic factors (attendance, participation, effort, and behavior) in letter grades. There are other ways to communicate praise and feedback in these areas.

All students have different starting and ending points. The expectation is that all of them will grow.

Teach and grade for mastery. “A, B, and ‘You’re not done’” may be the best approach to assessing students. This allows students to “see themselves as a work in progress,

\(^{16}\) This section adapted from Wormeli (2006).
and it keeps them moving toward mastery rather than settling for anything less than full understanding.”\textsuperscript{17}

Low grades push students farther from our cause. They don’t motivate students.\textsuperscript{18}

Avoid zeros. “Zeros skew the grade to a point where its accuracy is distorted. Teachers using the 100-point scale who do not replace a zero with a fifty, sixty, or seventy to equalize the influence of all grades earned end up recording inaccurate grades.”\textsuperscript{19}

Allow redos.

Do-overs often occur in the real world. “Pilots can come around for a second attempt at landing. Surgeons can try again to fix something that went badly the first time. Farmers can grow and regrow crops until they know all the factors to make them produce abundantly and at the right time of the year” (136). “Our world is full of redos. Sure, most adults don’t make as many mistakes requiring redos as students do, but that’s just it – our students are not adults and as such, they can be afforded a merciful disposition from their teachers as we move them toward adult competency.”\textsuperscript{20}

Give students full credit for the highest levels they achieve, rarely holding past digressions against them.\textsuperscript{21}

Use students’ pattern of achievement over time to declare mastery, not allowing one or two immature or unfortunate moments to taint an accurate record.\textsuperscript{22}

Grade students against their own progression. When the curriculum is adjusted for a student and it results in a significant difference in his or her final content and skill mastery, indicate the adjustment on the report card.”\textsuperscript{23}

\textbf{ALTERNATIVE ASSESSMENTS: NONVERBAL:} (1) Physical Demonstration (pointing, gestures, thumbs-up/down, act out vocabulary). Teacher uses checklist to record student responses over time. (2) Pictorial Products (students can produce or manipulate drawings, dioramas, models, graphs, and charts). **K-W-L CHARTS:** what I know; what I want to know; what I learned. **ORAL PERFORMANCES OR PRESENTATIONS:** interviews, oral reports, role plays, describing, explaining, summarizing, retelling or paraphrasing stories or text material. **ORAL AND WRITTEN PRODUCTS:** content area logs, dialogue journals, audio recordings. **PORTFOLIOS:** audio or video of readings or oral presentations, writing samples, art work, conference or interview notes, anecdotal records, checklists (by teacher, peers, or student), tests and quizzes\textsuperscript{24}

\textsuperscript{17} Wormeli, 2006 (p. 98).
\textsuperscript{18} Wormeli, 2006 (p. 103).
\textsuperscript{19} Wormeli, 2006 (p. 129).
\textsuperscript{20} Wormeli, 2006 (p. 136).
\textsuperscript{21} Wormeli, 2006 (p. 196).
\textsuperscript{22} Wormeli, 2006 (p. 196).
\textsuperscript{23} Wormeli, 2006 (p. 174).
\textsuperscript{24} Tannenbaum, 2008 (pp. 33-36).
Examples of Conceptual Teaching Focused on Big Ideas

A Science Teacher’s Epiphany

A teacher once told me a story about how she came to know what and how to teach in her science class. She had wrestled with curriculum guides that were too long, texts that were too dense or too simple, labs that were sometimes fun but not illuminating, and labs that were neither illuminating nor fun. She watched her students drift away too often, and she felt smothered by what she perceived to be immutable mandates.

A colleague said to her, “Forget all the books and manuals for a minute. Go back to what it was that used to make science magic for you. Think about what it used to feel like to do science. Then assume the kids you teach will only have your class to learn about science. It’s their only science class – ever. What do you need to teach them so they will love science? Think about that for a minute. Then change one part of what I just asked you to do. Assume you only have three kids to teach: your own three children. And assume that at the end of the year, you will die. What would you teach them about science in that year?”

The teacher said to me, “I’ve understood what I have to do ever since that day. I don’t always know how to do what I have to do, but knowing what I have to do has changed the way I think about what I teach.”

Relevance in Literature Class

Judy Larrick taught a group of disenchanted high school students during sixth period. The curriculum guide required that she teach “classics” that her students found inaccessible and unintelligible. Attendance was down, and Judy’s spirits were just as low. Lethargy was the only commodity on the rise. Judy struggled through the year cheerleading her students and trying to inject energy into essentially dead class periods. The year ended, but Judy didn’t berate her students or lament the approach of another year. She went hunting for solutions.

When September came, the curriculum guide was still in place. Sixth period was still a collection of discouraged and irascible adolescents. But as school began, Judy asked, “Anybody here ever been a victim? What does it mean to be a victim? What does it feel like? Can a victim control anything in life? What? When?” A classroom full of “victims” engaged in spirited exchanges. With their teacher, they built a concept map of “victim.” Finally, Judy offered, “Want to read a book about somebody else who was a victim, to see whether things play out like you said?” The students read “Antigone” as though they were discoverers of ultimate truth. Class attendance soared and remained high.

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25 Tomlinson, 1999 (pp. 29-30).
26 Tomlinson, 1999 (p. 30).
A Science Teacher Engages His Students

“Open your books to page 115 and read Chapter 5” falls short of convincing many of his learners that this study will be worthy of their time and energy.... Therefore, as the unit [on buoyancy] begins, Mr. Johnson asks his students to think of times when some event, circumstance, or change in their lives made them “sink” or “float.” He gives a couple of examples from his own experience to be sure the students understand the task.27

History: Key Concepts, Principles & Questions

“My goal as a history teacher is to help my students realize that history is not the study of dead people. It’s students holding up a mirror created by the past and seeing themselves in it.”28

Key Ideas: change, revolution, and scarcity versus plenty

Key Principles: 1) Changes in one part of society affect other parts of the society as well; 2) People resist change; 3) Change is necessary for progress; 4) When members of a society have uneven access to economic resources, conflict often arises; 5) The struggles of one historical period are much like those of other historical periods.29

An Algebra Teacher Targets Fewer Areas with Better Results

The teacher recognizes that some students lack prerequisite skill, whereas others learned as rapidly as she could teach or even without her help.

At the outset of each chapter, the teacher delineated for students the specific skills, concepts, and understandings that they needed to master for that segment of the curriculum – both to have a solid grasp of mathematics and to pass the upcoming standards exam.

She helped students make connections to past concepts, understandings, and skills. She divided each week into segments of teacher-led instruction, whole-class instruction, and small-group work.

For group-work sessions, she sometimes met with students who were advanced in a particular topic to urge on their thinking, to help them solve problems in multiple ways, and to apply their understandings and skills to complex, real-life problems.

Sometimes she met with students who needed additional instruction or guided assistance in applying what they were learning.

28 Tomlinson, 1999 (p. 30).
29 Tomlinson, 1999 (p. 56).
Sometimes she created mixed-readiness teams of students whose goal was solving a problem in the most effective way possible. The teacher randomly called on students to present and defend their team’s approach, thus maximizing the likelihood that every student had a model for solving and important problem and was able to explain the reasoning behind the solution.

These problem-solving groups often evolved into teacher-created study groups that worked together to ensure that everyone had his or her questions answered. Not only did the teacher provide some class time for the study groups, but she also encouraged regular after-school meetings in her room, where she was able to monitor group progress and assist if needed. She recalls,

_The hardest thing for me was learning to teach a class where I wasn’t always working with the class as a whole, but that has been rewarding, too. I know my students better. They know Algebra II better – and I think probably understand it better, too. I haven’t made a math prodigy out of everyone, of course, but I can honestly say the students like algebra better and are more confident in their capacity to learn. Their scores on the standards test improved, even though I targeted some ideas and skills more than others. I think what that fact tells me is that if I help students organize their mathematical knowledge and thinking, they can fare better in unfamiliar territory._ [Bold mine.]

An Elementary Teacher Focuses on 3 Main Concepts

In an elementary classroom, a teacher organized many of her standards around three key concepts – connections, environments, and change – and their related principles; for example, living things are changed by and change their environments. She used them to study history, science, language arts, and sometimes mathematics.

Although she generally taught each of the three subjects separately, she helped students make links among them; she created activities for the students that called for reading skills in social studies, for example, and social studies skills in science.

That approach, she said, allowed everyone to work with the same big ideas and skills in a lesson while she could adjust materials, activities, and projects for varied levels, diverse interests, and multiple modes of learning. Bringing the students together for class discussions was no problem, she reflected, because everyone’s work focused on the essentials – even though students might get to those essentials in different ways. “It took me some time to rethink the standards and how I taught them,” she recalled.

_But I feel as if I’m a better teacher. I understand what I’m teaching better, and I certainly have come to understand the students I teach more fully. I no longer see my curriculum as a list to be covered, and I no longer see my students as duplicates of one another._

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31 Tomlinson, Carol Ann. Reconcilable Differences. 6-11.