In this article, six elements of instruction are listed that every child should experience, everyday. The first element is that every child reads something they choose for themselves. Research has found that two factors for improving reading motivation and comprehension are access to many books, and personal choice of what to read. Students should not only be reading what the teacher has planned for them that day, but also something that they have chosen for themselves. Teachers can help them by first limiting choices and setting guidelines of appropriate material to have successful reading experiences. The second element of instruction is that every child reads accurately. “Good readers read with accuracy almost all the time” (p. 11). Reading acceleration occurs when students are reading at 98% or higher accuracy. Anything below 90% does nothing for the students reading ability. Accuracy strengthens their word-recognition, decoding, and word-analysis skills. If students do not have accuracy, they read less material due to frustration and their comprehension is decreased. A third element is that every child reads something they understand. To get the brain to develop the skills to read, it takes lots of reading and rereading of content that a student comprehends. Another element of instruction the article discusses is how every child writes about something meaningful and personal. When students are writing about something they care about they will put more effort into the piece. The fifth element states that every child talks with peers about reading and writing. This element is easy to implement and benefits the students’ comprehension and motivation. The final element of instruction is the every child listens to a fluent adult read aloud. Simply by listening to an adult model fluent reading, the students’ fluency skills will increase.


This study’s purpose was to see the effect of three small-group reading interventions on reading fluency when applied in isolation from other intervention strategies. Four second-grade students from a rural school were the subjects for this research. They were randomly selected from a list of several students that teachers identified as
needing additional reading assistance. Three different intervention conditions plus a control condition were used in the study. Before the beginning of the intervention, in all conditions, the trainer greeted the group and explained to them that by putting forth their best effort, each session they could add stickers to a reward chart. The procedures to the reward system was explained to each student. “Assessment procedures were also consistent across each condition. The two types of assessment conditions (immediate and retention—both described below) were always conducted by having a student read one-on-one with an experimenter in an area free from noise and distractions. Retention assessments evaluated students’ oral reading fluency of the three passages they read during the condition implemented in the previous session (*2 days earlier).” (p. 217). Sessions were held about every other day on Monday, Wednesday, and Friday morning. For each session, there was about 2 days between students’ first exposure to a passage and the retention assessment.

During the control (CL) condition, the students simply read passages A, B, and C in order to the trainer. In the listening passage preview (LPP) group, the trainer read passage A twice. During each reading the trainer modeled good expression and read at a pace slightly faster than the students would normally read the story. Students were instructed to read along silently with the trainer using their finger to follow along. After passage A was read twice, each student was taken into a different room for immediate assessment on that passage. The same procedure was followed for passages B and C. During the repeated reading (RR) session, the trainer randomly selected one student from the group to be the “group leader.” The student read passage A aloud while the other students read along slightly softer than the leader. After the first reading, another leader was chosen for the second reading of passage A. The same procedure was followed for the second reading. After the passage was read twice, the immediate assessment was conducted just as it was in the LPP group. Similar procedures were followed for passages B and C. For the listening only group (LO), the trainer told the students to listen carefully and then read passage A aloud to the students twice. They were not given a copy of the passage to follow along with. Immediate assessment procedures were followed just as in the LPP and RR groups. Procedures were the same for passages B and C for the LO group. For all four conditions, median words correct per minute (WCPM) scores were collected from passages A, B, and C for each of the sixteen sessions. The results of both the immediate and retention assessments WCPM gains indicated that each of the intervention strategies were more beneficial than the CL condition. The RR condition was more effective than the other conditions when looking at the WCPM gains. Both the RR and LPP conditions outperformed the LO condition.

This article begins with an account of a student who is so down on her ability to read fluently and says she will never be able to do it. The teacher is using RTI, but why use an intervention that doesn’t address the specific needs of the students? The teacher had been providing this particular student and others with reading comprehension during RTI. The focus on reading comprehension was not appropriate for these students. Comprehension depends on having background knowledge, vocabulary and fluency. Where does self-efficacy fit in? It might positively affect their performance. Self-efficacy is improved through successful experiences and declines through failure. One way this teacher is trying to increase fluency as well as self-efficacy is by including readers theater into reading groups. Through readers theater students can practice fluency because they have to rehearse the script many times, therefore, removing the stigma that repeated readings mean you didn’t read it well enough the first time. For this teacher, when the day came for the students to perform, they did an amazing job and they were the star readers.


The purpose of this study was was to determine the effects of adding a multisensory component to an already existing supplemental reading program on the decoding skills of students who are classified as treatment resisters. Multisensory instruction refers to visual, auditory, and kinesthetic-tactile strategies used at the same time to enhance learning and memory. Six second-grade students, identified as treatment resisters, received 20 lessons in the Early Reading Tutor (ERT), a supplemental reading program. These six students were divided into two distinct groups as well. One group consisted of three of the students and was called the Low Words/Low Sounds group because they were reading nonsense words at levels below the ceiling criterion of selection and below the DIBELS benchmark for sounds in nonsense words. The remaining three students were in the other group called Low Words/High Sounds because they were reading nonsense words below the ceiling criterion for selection but met the DIBELS benchmark for sounds. The interventionist would bring one student at a time from their classroom to the tutoring room for a 10-15 minute session. The student and experimenter were seated across from each other at a table.
interventionist administered the ERT lesson to each student daily for baseline measures. Once the ERT instruction showed no changes in trend or level, the baseline was set and the addition of multisensory instruction intervention began. The multisensory strategies occurred as either additions or replacements to the following ERT components. During letter-sound activities, where students were asked to say the sound of the letter as the experimenter touched under the letter, the multisensory addition had the student form each letter on a carpet square while orally producing the sound. During segmenting activities, the experimenter said a word slowly and had the student repeat it. As the student repeated, she tapped out the individual sounds with her fingers. Following the tapping of the word, the student used plastic magnetic letters to make the word on a cookie sheet. The student manipulated each word by changing one letter and tapping out the new word. They practiced this several times. During word reading activities, students sounded out the word by tapping it out. While reading storybooks or sentences, students were required to tap out any unfamiliar words as they read. The results of this study show that fluency of decoding VC and CVC nonsense words increased when multisensory components were added to the supplemental ERT intervention. The fluency of sound recognition within VC and CVC words increased as well. The oral reading fluency on a first grade reading passage for these second grade students increased for five of the six participants but only moderately. Yet, oral reading fluency of on grade level passages had an average gain of ten words per minute for the Low Words/High Sounds group and five words per minute for the Low Words/Low Sounds group. The apparent contradiction of these last two findings has been attributed to the fact that the first grade reading passage assessment was for only one passage and the on grade level oral reading assessment was the median score of three passages. This median score would be a more stable measure. So over all, the addition of a multisensory component was beneficial to these second grade, treatment resisters.


This article, written by a classroom teacher, discusses how the focus on one aspect of fluency caused unintended consequences for her students. The district chose fluency as a focus because they considered reading rate a reliable predictor of success. “Proponents of instruction in reading fluency point to the importance of automaticity, the ability to decode words quickly and effortlessly” (p. 74). Researchers argue that a fluent reader makes decoding routine so that they can direct their attention to understanding the text. Reading rate is a measure of the student’s automaticity. The article goes on to explain the fluency is not just about speed, it is also about expression
and ultimately comprehension. This teachers focus on speed, for test result purposes, did not end with students increased speed displaying increased comprehension. Actually, the students who were the quickest readers were consistently not the best performers. Her students were in need of decoding and comprehension instruction, not practice of faster reading.


The purpose of this study was to see if low-cost reading fluency intervention program of repeated reading techniques would be effective to increase reading fluency of second grade students. The fluency flyers club began after some elementary teachers reviewed student reading data for the fall term of the MAP test. The data revealed 17 second-grade students with reading scores below the 33rd percentile. The team decided to implement a fluency building intervention program for dysfluent readers. Three trained tutors implemented the program five days per week by pulling students from their general education classroom for five to ten minutes per day.

On Monday, the volunteer pulled the first student and brought them to the quiet room. They administered the cold read and recorded the results on the data sheet. That child was then set back to the room to grab the next child and bring them back to the intervention room with them. As child one reread the passage to them self, the cold read was administered to child two. Child two then returned to the classroom to get child three and bring him to the intervention room. While student three was administered the cold read, students one and two reread the passage to each other. The administrator next had the three students reread the passage together two or three more times and then ended the session for the day. On Tuesday, the same three students read the passage three of four times as a good reader. On Wednesday and Thursday, the administrator had the students read the passage three or four times as a good reader and also as a fast reader. Friday, each student was brought to the intervention room separately to be assessed. The teacher conducted the post assessment using the same method and reading passage as the pretest. Results were then recorded and compared. After six weeks of intervention, students were reassessed on the MAPs test. Student gains and parent, teacher, and student perceptions validate the program’s success.

Educators try to reconcile by embracing one value and holding the other at arm’s length for a while or by striking compromises- satisfying one a little by sacrificing the other a little.

“As early as the late 19th century, however, reformers saw the flaws inherent in age-graded schooling. They saw that all students did not learn content and skills at the same speed, nor did all students have similar motivation, interests, and preparation for schooling.”

To deal with the design flaws earlier generations of reformers created differentiated instructional programs.

Tomlinson: “Curriculum tells us what to teach, differentiation tells us how to teach the same standard to a range of learners by employing a variety of teaching and learning modes.”

HYBRID SCHOOLS- students spend 100 minutes each day in a computer lab, working on math or reading lessons geared to their individual academic profiles. They practice fundamentals and work on exercises at their own pace, without taking up valuable class time. They spend the rest of the day with teachers in classrooms covering reading, math, social studies, and science lessons aimed at meeting curriculum standards.


This study compared the effects of providing students with two types of performance feedback. The purpose was to examine whether providing students with feedback regarding the number of errors or the number of correct words read would result in increases in oral reading fluency than if participants received no feedback at all. Six elementary students ranging in ages from eight to nine years old, experiencing reading fluency difficulties, were chosen for this study. The students were initially assessed using twelve passages which were developed by the examiners to fit each participants instructional level. “Scripted procedural protocols were developed for baseline and experimental conditions to assess the integrity of implementation by the experimenters” (p. 153). For each of the experimental conditions, a performance feedback graph was developed. One graph was made to show the number of errors during reading and the second graph was made to show the number of words read correctly. “To assess the effects of the baseline and experimental conditions on the participants’ reading ability, oral reading fluency was measured and calculated by
computing the number of WRCM” (p. 153). The study took place for ten weeks, two
days per week, for approximately twenty minutes. During the baseline condition,
students read three different reading passages. The experimenter did not provide any
instruction feedback. For the performance feedback on words read correctly (PFWC)
condition, the students were also given three different reading passages. The
experimenter told the student the mean number of words read correctly during the
initial test. For the remaining sessions, the student was informed of the mean number
of WRCM for the previous session. A bar graph was also displayed to illustrated the
number of WRCM across each session. The student was instructed to read the three
passages for the day. At the end of the session, the student’s mean number of words
correctly read was computed and recorded on the bar graph. Similar procedure was
followed for the performance feedback on words read incorrectly (PFWI) condition
that was followed for the PFWC condition. The difference was the focus was on the
number of words read incorrectly. Results were placed on the the student’s bar graph
at the end of the session, as well. The results of this study suggest that providing
students with performance feedback regarding the number of words read incorrectly
had the greatest gains in oral reading fluency. Although all six students’ error rates
were lower during the PFWI condition when compared to the base line, only half of
the students’ error rates were lower during the PFWI condition. This could have
resulted because even though students are informed of their errors and encouraged to
decrease the errors they make, students are not usually informed of fluency in reading.
Giving them this information could have a great influence on their desire to become
better readers. In conclusion, providing students with feedback regarding their
performance is an effective way to increase oral reading fluency.


This article proposes components to a reading program that will help students become
interested in and succeed at reading. The first component they discuss is having ample
time for text reading. Research has shown that classrooms implement a small amount
of time where students are actually reading text. Estimates ranged from seven to
fifteen minutes per day at the elementary levels. “Allocating ample time for actual
text reading and ensuring that students are actually engaged in text reading during that
time are among teachers’ most important tasks in comprehension instruction” (p. 62).
The benefit to insureing this time is for practicing the skills and strategies that are
important to proficient reading. Also, reading results in gains of new knowledge
which aids in comprehension. A another component to the program they suggest is
getting the most out of reading time. Allowing students to choose what they are going
to read, with assistance from teachers, gets them interested and motivated. Also
teachers must ensure optimal difficulty of the text the students choose is at an
appropriate level. Multiple readings is another way they suggest to get the most out of
reading times. Rereading of texts leads to greater fluency (reading speed, accuracy,
phrasing, and intonations) and comprehension. Teachers can also allow part of the
reading time for reading in pairs and provide opportunities for readers to discuss their
readings with peers as well as the teacher. The final three components that the article
suggests is direct instruction of reading comprehension, providing peer collaborative
learning, and make time to talk about reading. The article concludes with the thought
that no one approach will fit all students or classrooms, there is a call for multiple
approaches.

Leadership, 55(6), 11-12. Retrieved from http://www.ascd.org/publications/educational-
leadership/mar98/vol55/num06/Balanced-Reading-Instruction-in-Practice.aspx

This article is about how a teacher uses whole-group and small-group instruction to
help students discover the joy of reading. One of the techniques that she uses
rereading text through the reading and writing workshop. The students begin their
reading and writing workshop by finding a buddy to sit in pairs and read to each other.
During this time the teacher works one-on-one with a student to read books from his
familiar read bucket. While she does this she makes notes on his progress. Then she
challenges him by introducing an unfamiliar book that is on a topic that she knows
interests him. Next the students are called to the circle to read the daily message. This
opportunity is to practice reading skills as well as for phonics instruction. As the
children are working, the teacher again notes who writes the words easily and who
will need extra help. Connections to the days phonics lesson will appear throughout
the day. During shared reading time (teacher read aloud), the teacher asks them to
look for the phonics skill they learned. Following this story the children begin a
reading response. As they are working, the teacher works with small-groups for
guided reading where they again apply their new phonics skills. The final activity is
journal writing. While the students are writing in their journals, the teacher again is
walking around jotting down notes about individual student needs or
accomplishments. The workshop is closed with a story that they will reread during
tomorrow’s workshop.

Leadership, 69(6). Retrieved from http://www.ascd.org/publications/educational-
leadership/mar12/vol69/num06/Five-Reasons-Readers-Need-Technology.aspx
This article discussed the importance of literacy skills and how it is the base on which reading is built. For this reason, helping struggling students to catch up is very important and extremely challenging. This article highlights how technology gives us the best chance to achieve this difficult task. The five reasons it gave for this conclusion are as follows:

1. Technology is adaptive: adaptive technology is able to respond immediately to student progress and give instruction and practice and the optimal level.

2. Technology is good at facilitating repetitive practice: it knows which skills a student is struggling with and can order up the right kind of practice until it is mastered.

3. Technology is available anytime and anywhere: it allows learning outside of the classroom.

4. Technology is superb at gathering and processing data: computers can quickly assess that student’s skill set, organize the data and deliver customized data to the teacher, parent, and student.

5. Technology is motivating: it can process and demonstrate improvement in the smallest bits. For students, seeing the reading levels tick up is very motivating.


This article discusses the benefits of small-group instruction for ELL students. Small-group instruction is one targeted approach for assisting students with similar needs. Student improvement can be achieved by the group time focusing on explicit, interactive instruction in the core areas of reading. In one study, discussed by this article, the intervention group implemented fast-paced, interactive instruction and continual review of materials focusing on fluency and comprehension. This intervention group outperformed the control group in overall reading achievement. Using students’ assessments to identify needs is a crucial part of the process. Assessing them frequently, moving as assessments see necessary, and adjusting material to fit needs is a necessity.

“The purpose of this study was to evaluate the effects of a repeated reading intervention package on oral reading fluency of independent level and grade level transfer passages with 3 second-grade students.

1. To what extent would an adult-delivered repeated reading intervention package including preview and practice of isolated passage words, unison reading, performance cueing and feedback, and error correction increase the participants’ oral reading rates on the grade level (i.e., second grade) transfer passages?

2. To what extent would the repeated reading intervention package increase the participants’ initial oral reading rates on the first-grade transfer passages?

This study examined the effects of a repeated reading intervention package on 3 second-grade students’ oral reading fluency on grade level transfer passages. Results showed that the repeated reading program combining several research-based components (i.e., repeated readings of independent level passages four to five times with preview of difficult passage words in isolation, unison reading, error correction, and performance cueing and feedback) improved fluency on second-grade transfer passages for the three participants lending support to the existing literature on repeated reading.

The improvement brought all students closer to the grade level benchmark goal although the goal was not met. Conclusive statements cannot be made about the effectiveness of repeated readings because multiple practices were used together at the same time. More research will need to be conducted to identify the effectiveness of each particular practice.


This article is written by a reading interventionist and she is discussing what goes on as she is administering the DIBELS. It is the time of year when they benchmark 700 students to identify as “at risk”, “some risk”, and “low risk”. The numbers on the data are the focus of their staff development sessions, ongoing workshops, and statewide initiatives. They dictate their instruction for the rest of the year. Her concern while
giving the DIBELS test is that some of the students see the stopwatch and ask if they are being timed, then suddenly they students become NASCAR racing readers. There is less reading for meaning or paying attention to punctuation, it is all about how fast they can read the words. Those students who reread to understand what was being said, lose points while those who are speed reading move to the top of the class list. They “push” the BIG FIVE, the program is scientific, and systematic, but what is the goal?? She is curious about what happened to implementing guided reading and comprehension instruction before the student could segment words? Teachers are torn between a voice telling them to teach the alphabetic principle, progress monitor, and track and graph with purpose and another voice saying go ahead teach authentic poetry, readers’ theater, and passages with purpose. “It appears fluency has taken center stage” (para. 13).


The purpose of this study was to examine the effectiveness of systematic, tiered intervention on “treatment resisters” through a more intensive presentation and modeling, direct explanation, and guided practice of key early literacy skills through peer coaching. The participants were second grade students from fourteen elementary schools that were randomly picked from a large number of students identified as “at risk”. All students participated in 90 minutes of classroom-based core reading instruction and 30 minutes of individual work time (IWT). The treatment students were assigned to one of three treatment groups. The groups were primary intervention only, primary plus commercially-available tier III intervention, and primary plus project-developed tier III intervention. In the primary intervention only group, students are divided into groups in which they engage in structured learning activities, evaluate each other’s performance and provide immediate feedback, and assume trading roles of tutor and tutee. One student passes out the fluency folders and the student coaches (stronger readers) partner up with a struggling reader. They read a passage from their fluency folder that is on their independent reading level chorally with the peer coach. During the second read they alternate sentences with their peer coach. During the third read the student reads the passage alone with the peer coach helping as needed. Next the students time their reading of the passage and noted on the passage where they stopped at one minute. Together they add up the correct words read per minute and record it on the students graph inside the folder. This took approximately ten to twelve minutes, three times a week. The primary plus commercially-available secondary intervention group used Reading Mastery materials in addition to the primary intervention. The approach is based on Direct Intervention
techniques, providing the kind of careful instruction that is needed to teach basic skills. It was used during the IWT period for students. During the primary plus project-developed tier III intervention they developed a supplemental intervention designed to increase phonemic awareness, alphabetic understanding, decoding skills, and fluency of students who were not progressing at expected grade level. The lessons were ten minutes in length and taught one to three students at a time. They provided instruction in auditory skills of blending and segmenting, letter-sound correspondences, reading phonetically regular words, fluency building with connected text, and sight word practice. This addition was used during students IWT period as well. The district used DIBELS assessments to monitor student progress. During the ORF section students were given one minute to read each of three passages and a median score was taken from the assessment results. The results of this study showed that the children who participated in the peer coaching displayed significant growth in reading fluency as compared with their peers in the “control” group. Their were also differences in RtI outcomes for the students who participated in more instructional strategies.


The article discusses how even though the national campaign for reading is focused on the elementary grades, this should only be the first step. RAND states that even if educators made sure that all students were reading fluently by the time they finished 3rd grade, that doesn’t mean that they would be proficient readers into high school and beyond. “Fluency and word recognition are important foundational skills, but they do not automatically lead to effective comprehension” (p. 92). The study group identified some finding that research has established. One of the findings mentions that early instruction used to increase fluency builds a foundation for positive growth in comprehension. “The most effective fluency instruction consists of repeatedly reading aloud from the same text, either with teacher assistance or independently” (p. 92). Metacognitive strategies have been found to improve reading comprehension, as well. The study also states that teachers foster comprehension development by connecting strategies to the text, then they become more purposeful. The author of this article states that typical classrooms in the primary and upper elementary schools do not spend adequate time and focus on comprehension activities.

Reading fluency is taking the front seat in discussions about effective reading instruction and reading success among students. The problem is that programs, materials, and teacher training do not focus on reading fluency. The author states that for a student to be a successful reader they must be able to process the text (surface-level reading) and comprehend what they have read (deeper meaning). “Reading fluency refers to the reader’s ability to develop control over surface-level text processing so that he or she can focus on understanding the deeper levels of meaning embedded in the text” (p. 46). The article discussed reading fluencies three dimensions: accuracy in word decoding, automatic processing, and prosodic reading. Students must be able to read accurately, quickly, as well as with expression to get full understanding of the text being read. To calculate accuracy, students need to have between 90-95 percent for grade level material. To assess automaticity in decoding, teachers have students orally read a grade level passage for one minute and then calculate the number of words read correctly. Their reading rate will increase as they mature. One way to assess prosodic reading is to listen to the student read a grade level passage, then use a rubric to judge the quality of the reading. Some of the elements to consider may be volume, phrasing, smoothness, and pace. Students at risk in the area of accuracy, need more instruction in decoding. As for students who need help developing automaticity and prosodic skills, repeated readings and assisted readings are very useful. Performance passages (poetry, scripts, speeches, jokes, riddles, and dialogues) are perfect for developing fluency. The classroom teacher plays a vital role in developing prosodic reading skills by modeling good reading during read alouds and classroom discussions. Although we want students to be fluent, we want to avoid encouraging them to “pick up the pace”. “If we emphasize speed at the expense of prosodic and meaningful reading, we will end up with fast readers who understand little of what they have read” (p. 50). Fluency will have impressive growth in students who have many opportunities for expressive reading through interventions like repeated and assisted readings.


This study was developed to examine the development of oral reading fluency in first grade students. The purpose was to investigate patterns of growth in ORF for at-risk children and to identify within-year and across-year predictors of growth and level for the at-risk children. Growth curve analysis was used to determine the best model of growth. It uses all available data points to analyze individual patterns of growth over
time. The participants of the study were 276 first-grade students who were a part of a larger study of reading disability classification. The at-risk (AR) sample included 140 children, and the not at-risk (NAR) sample included 136 children. The test measures included many areas. The first area was letter sound fluency (LSF), and was measured as the number of correctly identified letter sounds per minute. Next, was oral reading fluency (ORF) which was measured as the number of words read correctly in text in one minute. Then the measured rapid automatized naming (RAN). To assess the RAN they used the CTOPP that measures the naming speed of a series of six familiar objects presented in random order. Two trials were administered so they could come to a mean average score. They also tested phonological awareness, word reading efficiency, and conducted a full scale IQ test on all of the children. Teacher ratings of the classroom and background variables were also considered. In first-grade, LSF and ORF were administered for twenty weeks from January to May for all children. During second-grade, ORF measures were administered weekly or monthly for 34 weeks from November to May. Their findings reported that fluency differences begin early. Students identified as at risk in the fall of first-grade were reading less than half as many words per minute and growing at approximately half the rate of average achieving peers. The lower performance of the AR students continued till the end of second-grade. Findings reported that LSF was a significant predictor of ORF growth. Children with better LSF skills in January exhibited more growth in ORF from January to May. LSF was not a significant in the second grade model. The January ORF skill was a significant predictor of first-grade ORF growth. OFG growth had more variance than either of the point estimates of word reading skills. As for RAN, phonological awareness, and background variables, none were uniquely predictive in first-grade.


Principles that guide differentiated classrooms:

1. The teacher focuses on the essentials: to learn

2. The teacher attends to student differences

3. Assessment and instruction are inseparable

4. The teacher modifies content, process, and products: content is what she wants student to learn and materials to accomplish is with. process describes activities
designed to ensure that students use key skills to make sense out of ideas. Products are vehicles through which students demonstrate what they have learned. Students vary in readiness, interest, and learning profile.

5. All students participate in respectful work: some students need repeated experiences to master them, others do not

6. The teacher and students collaborate in learning: students help create and develop

7. Teacher balances group and individual norms: Accelerate students’ skills rapidly who are struggling and make sure students and parents are aware of goals and growth

8. The teacher and students work together flexibly: the goal is to link learners with essential understanding and skills at appropriate levels of challenge and interest


When a teacher lacks clarity about what a student should know, understand, and be able to do as a result of a lesson, the learning tasks she creates may or may not be engaging and we can almost be certain the tasks won’t help students understand essential ideas or principles.

Yet because of variance in student readiness, interest, or learning profile, children must “come at” the ideas and use the skills in different ways. If a teacher isn’t clear about what all students should understand and be able to do when the learning experience ends, he or she lacks the vital organizer around which to develop a powerful lesson.

Engagement happens when a lesson captures students’ imaginations, snares their curiosity, ignites their opinions, or taps into their souls. Engagement is the magnet that attracts learners’ meandering attention and holds it so that enduring learning can occur.

**A student who understands something can**

a. explain it clearly, giving examples;

b. use it;
c. compare and contrast it with other concepts;

d. relate it to other instances in the subject studies, other subjects, and personal life experiences;

e. transfer it to unfamiliar settings;

f. discover the concept embedded within a novel problem;

g. combine it appropriately with other understandings;

h. pose new problems that exemplify or embody the concept;

i. create analogies, models, metaphors, symbols, or pictures of the concept;

j. pose and answer “what-if” questions that alter variables in a problematic situation;

k. generate questions and hypotheses that lead to new knowledge and further inquiries;

l. generalize from specifics to form a concept;

m. use the knowledge to appropriately assess his or her own performance, or that of someone else

Lessons that are not engaging let students’ minds wander. They fail to make the case for relevance because students don’t connect them to what’s important in their lives. These kinds of lessons have little staying power.

Levels of Learning:

*We can learn facts, or discrete bits of information that we believe to be true. We can develop concepts, or categories of things with common elements that help us organize, retain, and use information. We can understand principles, which are the rules that govern concepts. We develop attitudes, or degrees of commitment to ideas and spheres of learning. And we develop skills, which are the capacity to put to work the understandings we have gained.

During planning, a teacher should generate specific lists of what students should know (facts), understand (concepts and principles), and be able to do (skills) by the time the unit ends. Then the teacher should create a core of engaging activities that offer varied opportunities for learning the essentials she has outlined. These activities should lead a
student to understand or make sense of key concepts and principles by using key skills.

Where Do Standards Fit In??

*Each standard in a prescribed list is either a fact, concept, principle, attitude, or skill. It is a valuable exercise for teachers, administrators, and curriculum specialists to examine standards lists, labeling each standard with its level of learning.

Put another way, teaching skills without coherent, meaning-rich ideas is hollow. In addition, teaching mechanics without meaning is counter to the way humans learn

Learning Levels: A Case In Point:

*Facts illustrate and cement key ideas that are rediscovered repeatedly. Skills have a purpose rooted in meaning and utility. The learning promotes both engagement and understanding. These students are more likely to understand how their world works and to feel more competent as learners and young scientists.

Curriculum Elements:

*Teachers need to link tightly three key elements of curriculum: content, process, and product. (The other two elements of curriculum are learning environment and affect.)

Content is what a student should come to know (facts), understand (concepts and principles), and be able to do (skills) as a result of a given segment of study (a lesson, a learning experience, a unit). Content is “input.” It encompasses the means by which students will become acquainted with information (through textbooks)

Process is the opportunity for students to make sense of the content.

*An activity is likely to be effective if it

  - has a clearly defined instructional purpose,
  - focuses students squarely on one key understanding,
  - causes students to use a key skill to work with key ideas,
  - ensures that students will have to understand (not just repeat) the idea,
  - helps students relate new understandings and skills to previous ones, and
  - matches the student’s level of readiness.
A product is a vehicle through which a student shows (and extends) what he or she has come to understand and can do as a result of a considerable segment of learning.

A “product” means “culminating product,” or something students produce to exhibit major portions of learning.

*An effective assignment for a culminating product will:

- Clearly lay out what students should demonstrate, transfer, or apply to show what they understand and can do
- Provide one or more modes of expression.
- Lay out clear, precise expectations for high-quality content; steps and behaviors of developing the product; and the nature of the product itself.
- Provide support and scaffolding for high-quality student success.
- Provide for variations in student readiness, interest, and learning profile.

Joining Learning Levels and Curriculum

*That means content, process, and product are squarely focused on exploring and mastering key concepts, essential principles, related skills, and necessary facts. The following example illustrates how this sort of thinking and planning might look.


Student tasks should focus on essential understandings and skills. The tasks should be presented in varying ways so that each student has to stretch beyond his or her comfort zone.

Teaching triangle: equilateral

1. Teacher (top): The teacher is the inevitable leader in any effective classroom. A secure teacher controls the climate in the classroom. His approach determines whether respect, humiliation, delight, drudgery, possibility, or defeat wins the day. He does not have all of the answers, but that he has the power to find them.
2. Student:

Each kid is like all others and different from all others.

Kids need unconditional acceptance as human beings.

Kids need to believe they can become something better than they are.

Kids need help in living up to their dreams.

Kids have to make their own sense of things.

Kids often make their own sense of things more effectively and coherently when adults collaborate with them.

Kids need action, joy, and peace.

Kids need power over their lives and learning.

Kids need help to develop that power and use it wisely.

Kids need to be secure in a larger world.

3. Content:

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 the students; and makes students more powerful in the present as well as in the future.

Creating a healthy classroom environment

1. The Teacher Appreciates Each Child as an Individual

2. The Teacher Remembers to Teach Whole Children

3. The Teacher Continues to Develop Expertise
4. The Teacher Links Students and Ideas
5. The Teacher Strives for Joyful Learning
6. The Teacher Offers High Expectations—and Lots of Ladders
7. The Teacher Helps Students Make Their Own Sense of Ideas
8. The Teacher Shares the Teaching with Students
9. The Teacher Clearly Strives for Student Independence
10. The Teacher Uses Positive Energy and Humor
11. “Discipline” Is More Covert than Overt


Differentiated instruction is first and foremost good instruction.

3 effective teaching and learning that educators have not always known or clearly supported

1. Intelligence is variable: We can draw at least three important conclusions from the study of intelligence over the past half century. First, intelligence is multifaceted, not a single thing. Second is that it is fluid not fixed. Third, neurons grow and develop when they are used actively

2. The brain hungers for meaning: the brain seeks meaningful patterns and resists meaninglessness

3. Humans learn best with moderate challenge: for learning to continue, students must believe that hard work is required, but the hard work often pays off

Today, all children are expected to come to school, whatever their gender, socioeconomic status, or physical or mental challenge. Yet at one time, not all children came to public school.

The struggle for equity and excellence: We cannot achieve equity for children who come to school at risk of falling behind in learning unless we ensure that these learners
enter classrooms where teachers are ready to help build the sorts of experiences and expectations that the world outside the classroom may have been unable to build for the child. Similarly, children who come to school advanced beyond grade expectations in one or more areas also require equity of opportunity to grow from their points of entry, with teachers doggedly determined to ensure that their potential does not languish.


**Key Principles of a Differentiated Classroom:

The teacher is clear about what matters in subject matter.

the teacher understands, appreciates, and builds upon student differences.

Assessment and instruction are inseparable.

The teacher adjusts content, process, and product in response to student readiness, interests, and learning profile.

All students participate in respectful work.

Students and teachers are collaborators in learning.

Goals of a differentiated classroom are maximum growth and individual success.

Flexibility is the hallmark of a differentiated classroom.

**Differentiating: What, How, and Why

What is the teacher differentiating? How is she differentiating? Why is she differentiating?

Differentiate What refers to the curricular element the teacher has modified in response to learner needs. That is, it illustrates the teacher modifying content (what students will learn and the materials that represent that),

process (activities through which students make sense of key ideas using essential skills),
product (how students demonstrate and extend what they understand and can do as a result of a span of learning), or learning environment (the classroom conditions that set the tone and expectations of learning).

Differentiate How refers to the student trait to which the differentiation responds. It shows how the teacher differentiates in response to student readiness, interest, or learning profile.

Differentiate Why addresses the teacher’s reason for modifying the learning experience. Teachers believe modification is important for many reasons. Three key reasons include access to learning, motivation to learn, and efficiency of learning.

**Differentiation and Skills-Focused Instruction:**

student readiness for particular skills is often varied. Thus, most teachers see an acute need to differentiate how students practice skills. Here are some examples of teachers differentiating skills-focused assignments based on their assessment and understanding of students’ points of entry.

**Other Principles Reflected in the Examples:**

teachers we’ve seen have been effective in making their activities user-friendly with humor, opportunities for movement, and student collaboration. In all of these instances, the activities are equally respectful in that one version doesn’t look preferable to---or less desirable than---any other.

It’s also clear in these examples that readiness relates to a particular competency at a particular time; it does not equate to a statement about a child’s overall ability or inability.

**Differentiation and Concept-Based Instruction:**

the next examples demonstrate a teacher’s intent to integrate several or all levels of learning (facts, concepts, principles, attitudes, and skills) and to differentiate curriculum and instruction from that very rich starting point.

In all the examples of differentiation described in this chapter, teachers were clear about the essential facts, concepts, principles, and skills that framed their subjects. The teachers also continually sought information to help them understand each student’s point of entry and progress. Then they attempted to match curriculum and instruction to the learner’s readiness, interest, or mode of learning.

“How do I divide time, resources, and myself so that I am an effective catalyst for maximizing talent in all my students?”

“do whatever it takes to ensure that struggling and advanced learners, students with varied cultural heritages, and children with different background experiences all grow as much as they possibly can each day, each week, and throughout the year.”

In differentiated classrooms, teachers begin where students are, not the front of a curriculum guide

Engage students in instruction through different learning modalities, by appealing to differing interests, and by using varied rates of instruction along with varied degrees of complexity.


Principles of Effective Assessment

1. Assessment Principle 1: Consider Photo Albums Versus Snapshots: reliable assessment demands multiple sources of evidence. a single test at the end of instruction is less likely to provide a complete picture of a student’s learning than a collection of diverse sources of evidence is

*The widespread use of one-shot accountability testing has consequences that are well documented and include the following:

The pressures to improve test scores can lead to a narrowing of the curriculum toward the tested topics and an overemphasis on “test prep” at the expense of meaningful learning.
Important educational goals that are not easily and cheaply tested in a large-scale context (e.g., oral communication, decision making, research, expression in the arts) can fall through the cracks if they are not measured.

The standardized nature of most large-scale, “one-size-fits-all” testing flies in the face of what we know (i.e., not every child learns in the same way at the same time).

The predominant assessment format (selected-response) favors students with facility for recall and recognition. The results of high-pressure exams in which reading ability is paramount may present a distorted picture of the achievement of learners whose parents do not speak standard English, as well as of students with disabilities.

2. Assessment Principle 2: Match the Measures with the Goals: useful to distinguish among three types of educational goals: (1) declarative knowledge---what students should know and understand, (2) procedural knowledge---what students should be able to do, and (3) dispositions---what attitudes or habits of mind students should display

*Assessing Understanding: What is the difference between knowing and understanding? How will we know that students truly understand the big ideas that we have identified? How might we allow students to demonstrate their understanding in diverse ways without compromising standards?

*understanding is revealed through six facets: When we truly understand, we

a. Can explain via generalizations or principles: provide justified and systematic accounts of phenomena, facts, and data; make insightful connections and provide illuminating examples or illustrations.

b. Can interpret: tell meaningful stories; offer apt translations; provide a revealing historical or personal dimension to ideas and events; make it personal or accessible through images, anecdotes, analogies, and models.

c. Can apply: effectively use and adapt what we know in diverse and real contexts---we can “do” the subject.

d. Have perspective: see and hear points of view through critical eyes and ears; see the big picture.

e. Display empathy: find value in what others might find odd, alien, or implausible; perceive sensitively on the basis of prior direct experience.

f. Have self-knowledge: show metacognitive awareness; perceive the personal style, prejudices, projections, and habits of mind that both shape and impede our own understanding; be aware of what we do not understand; reflect on the meaning of learning and experience.
*a basic approach for determining whether learners really understand involves two: explain and apply. Students need to master the basics, and skill drills support that need. But learners also need a chance to use their knowledge and skills---in other words, to “do” the subject. When students can apply knowledge and skill appropriately to a new situation and can effectively explain how and why, we have the evidence to “convict” them of understanding. That the students must show understanding of essential big ideas does not vary, but the “degree of difficulty” of the assessment task can vary to appropriately address variety in learner readiness.

*GRASPS Frame

we recommend that teachers frame assessment tasks with the features suggested by the acronym GRASPS. In other words, include (1) a real-world goal, (2) a meaningful role for the student, (3) authentic (or simulated) real-world audience(s), (4) a contextualized situation that involve real-world application, (5) student-generated culminating products and performances, and (6) consensus-driven performance standards (criteria) for judging success.

3. Assessment Principle 3: Form Follows Function: The way in which we design and use classroom assessments should be directly influenced by the answers to four questions: What are we assessing? Why are we assessing? For whom are the results intended? How will the results be used? We have discussed the relationship between what and how we assess in the previous section.

Summative assessments are generally used to summarize what has been learned. These assessments tend to be evaluative in nature, and their results are often encapsulated and reported as a score or a grade. Familiar examples of summative assessments include tests, performance tasks, final exams, culminating projects, and work portfolios.

---diagnostic and formative---are critical to teaching and learning. Diagnostic assessments (or pre-assessments) typically precede instruction and are used to check students’ prior knowledge and skill levels and identify misconceptions, interests, or learning style preferences. They provide information to assist teacher planning and guide differentiated instruction. Examples of diagnostic assessments include skill checks, knowledge surveys, nongraded pre-tests, interest or learning preference checks, and checks for misconceptions.

Formative assessments occur concurrently with instruction. These ongoing assessments provide information to guide teaching and learning for improving achievement. Formative assessments include both formal and informal methods, such as ungraded quizzes, oral questioning, observations, draft work, think-alouds, student-
constructed concept maps, dress rehearsals, peer response groups, and portfolio reviews.

*Responsive Assessment to Promote Learning in Diverse Classrooms*

a. Assess Before Teaching: Pre-assessments should focus on the unit’s essential knowledge, understanding, and skill. They should provide a window into important strengths and weaknesses that students may bring to the study. Furthermore, they should not be graded. Rather, pre-assessments contribute to a teacher’s general sense of each student’s readiness status relative to essential content goals for the unit. At key points in the year, pre-assessments may also be useful in gaining insights about a student’s interests or preferred routes to learning. Many formats are useful for pre-assessment, including 3-2-1 cards, Frayer diagrams, quizzes, journal entries, checklists, and concept maps.

b. Offer Appropriate Choices: To make valid inferences about learning, teachers need to allow students to work to their strengths. Assessment becomes responsive when students are given appropriate options for demonstrating knowledge, skill, and understanding. The tic-tac-toe format enables teachers to structure the options while giving the students choices. The choice options are flexible. The “FREE” blocks allow students to propose an alternative source of evidence that suits their strength.

***Three CAUTIONS:***

First, we must always keep in mind that our aim is to collect appropriate evidence of learning based on the goals, not to simply offer a “cool” menu of product possibilities. Second, the options we provide must be worth the time and energy required.

Second, the options we provide must be worth the time and energy required.

Third, feasibility must be considered. Ideally, we might wish to individualize all major assignments and performance assessments, but realistically we have only so much time and energy.

**Provide Feedback Early and Often: Four qualities characterize an effective feedback system. The feedback must (1) be timely, (2) be specific, (3) be understandable to the receiver, and (4) allow for adjustment.

Specificity is key to focused adjustment. A second approach for making feedback understandable involves the use of models and exemplars.

Here’s a simple, straightforward test for a feedback system: Can the learners tell specifically from the given feedback what they have done well and what they could do next time to improve? If not, the feedback is not yet specific or understandable enough
for the learner. Finally, the learner needs opportunities to act on the feedback—-to refine, revise, practice, and retry.

**Encourage Self-Assessment and Reflection: The most effective learners are metacognitive; that is, they are mindful of how they learn, set personal learning goals, regularly self-assess and adjust their performance, and use productive strategies to assist their learning. One straightforward approach to cultivating metacognition involves having learners regularly respond to reflective questions such as those listed here. Such self-assessment in a differentiated classroom also enables student and teacher to focus both on nonnegotiable goals for the class and personal or individual goals that are important for the development of each learner.

**Another simple yet effective strategy for providing feedback while encouraging self-assessment and goal setting is to adjust the format of a rubric. Notice in Figure 5.7 that two small squares have been inserted in the bottom left and right corners of each box in an analytic rubric. The squares on the left side enable students to self-assess their performance according to the established criteria and performance levels before they turn in their work. The teacher then uses the right-side squares to evaluate. Ideally, the two judgments would be close. Now have a look at the two rectangles below the rubric. The first allows the teacher, a peer, or the student to offer comments, provide feedback, or raise questions. The second box is intended for students to set goals or plan actions to improve their future performance based on the feedback from the rubric.


**With the curriculum design in mind, we must consider just how we carry out the plans we’ve made so that they work for each of our students.

**What matters most for all my students to learn? What instructional sequence will maximize learning? How are my students as individuals faring as they attempt to make sense of the important ideas and use the important skills? Who needs my assistance to achieve understanding? How might I arrange classroom time and space to ensure those options? How will I ensure that my students and I are working as a team to benefit everyone in the class? What work will benefit some students as I work with others? How will I gather evidence of student success with the unit’s essential goals?
**Four over-arching and interrelated questions circulate in tandem in the teacher’s mind and inform one another: Who are the students I will teach? What matters most for students to learn here (curriculum)? How must I teach to ensure that each student grows systematically toward attainment of the goal and moves beyond it when indicated (instruction)? How will I know who is successful and who is not yet successful with particular goals (assessment)?

***Core Beliefs About Curriculum and Diverse Student Populations:

* Virtually all students should consistently experience curricula rooted in the important ideas of a discipline that requires them to make meaning of information and think at high levels. Effectively differentiated classrooms are developed to ensure all students have access to high-quality, meaning-focused curriculum.

* Students need opportunities to learn the “basics” and opportunities to apply them in meaningful ways. It is imperative that teachers help students recognize that these fundamentals serve larger purposes. Differentiation suggests that all learners will need to take part, at some times, in “sideline drills” as a means of refining and extending key skills. But all students should be first and foremost “players in the real game,” and they should always see the immediate connection between a sideline drill and the game.

* There is a need for balance between student construction of meaning and teacher guidance. Differentiation reminds us that different individuals will construct meaning from their differing experiences, abilities, and interests—and along different timetables and with different support systems.

* Students need to know the learning goals of a unit or lesson and criteria for successfully demonstrating proficiency with the goals.

  * Stage 1
    Share the content standards and desired learning outcomes with students at the start of the unit.
    Post and review the essential questions that will be explored during the unit.
    List the important knowledge and skills to be learned.

  * Stage 2
    At the start of a new unit, present to the students the types of assessments that will show evidence of learning (and understanding) by the end of the unit.
Share the culminating performance tasks and accompanying rubric(s) so students will know what will be expected and how their work will be judged.

Show models of student work on similar tasks so students can see what quality work looks like.

*Stage 3*

Explicitly connect for the students the learning experiences and direct instruction during the unit with the desired results, essential questions, and expected performances.

Have students regularly reflect on what they are learning and how it will help them with upcoming performance tasks as well as in life and later in school.

***Planning Instruction for Understanding in a Differentiated Classroom: questions is required of teachers in moving from development of curricular plans to their implementation: How do I give directions for tasks? How will I know what students understand and can do? How do I keep their interest? How do I know when to start and stop the various segments of a plan? How do we transition from one part of a lesson to the next? How do I distribute resource materials?***

***Using Classroom Elements Flexibly as Tools for Effective Instruction: Among the classroom elements that teachers employ daily—and can manipulate to help achieve desired ends—are time, space, resources, student groupings, instructional or learning strategies, presentation or teaching strategies, and partnerships. Figure 6.2 summarizes just a few of a myriad of ways in which teachers might flexibly use key classroom elements to address varied learner needs, thereby helping more students achieve greater degrees of success with the goals of high-quality curriculum.***

***Clustering Learner Needs to Make Instructional Planning More Efficient: That sort of “clustering” of student needs seems more attainable than a misconceived notion of differentiation as an Individualized Education Program for every learner. “What barriers to learning and what springboards to learning are predictable in my classes?” and then “How might I address those barriers and springboards as I plan the flow of my unit and lessons?” if we also thought in terms of addressing the patterns as part of classroom routines rather than as interruptions to classroom routines, we’d be more successful in addressing them. Finally, it’s almost certain that a “ramp” we think we are building for one student or one group of students would be of great help to others as well.***

***Selecting Instructional Strategies That Support Responsive Teaching: Another aspect of instructional planning for teachers in a differentiated classroom is selection
of instructional strategies that lend themselves to addressing readiness, interest, and learning profile. Once again, thinking about categories of student need and instructional strategies for addressing them makes planning in response to learner need more manageable than the premise of planning separately for each learner. Some instructional strategies are effective in addressing more than one category of learner need. For example, RAFT assignments3 are well suited to addressing readiness, interest, and learning profile simultaneously. Other strategies are easily adapted to respond to more than one category of student need. Whatever instructional strategies a teacher elects to use in response to learner variance should be used to help students understand big ideas, master essential skills, and work at high levels of thought on authentic tasks, with full knowledge of what will constitute success with the work.

***Asking Important Management Questions to Allow Instructional Flexibility:
Without such routines, it becomes quite difficult—if not impossible—to teach in a responsive or differentiated manner. An important research finding is that “teachers who established ‘orderly and enabling’ learning environments were most likely to teach for meaning and understanding” Figure 6.5 provides some categories useful in planning classroom management to support flexible and responsive teaching, poses some important questions a teacher might consider related to those categories, and provides a few illustrations of how a teacher might address the questions in practice.

***Teachers who use classroom elements flexibly to support student learning, cluster student needs to make instructional planning efficient, select instructional strategies to support responsive teaching, and seek workable answers to management questions will find themselves increasingly able to address the varied needs of their learners.


***Uncovering the content:
Teaching for understanding calls for teachers to “uncover” the content. When we speak of uncovering the content, we refer to teaching methods that go into depth to engage students in making meaning of content. A variety of methods—including problem-based learning, scientific experimentation, historical investigation, Socratic seminar, research projects, problem solving, concept attainment, simulations, debates, and producing authentic products and performances—have proven effective at provoking inquiry and engaging a range of students with content.
***Using Essential Questions in Teaching:

You will recall that we included essential questions in Stage 1 of backward design as a means of framing the big ideas that we want students to come to understand. Now in Stage 3, we use these questions to bring subject matter to life through our teaching. Consider the following essential question about content: If the content we study represents the “answers,” then what were the questions? One means of “uncovering” content, therefore, is to frame the content as the answers to questions or the solutions to problems. This approach provides learners with a glimpse into the origin and meaning of the content they are learning in a qualitatively different way than does a surface coverage of sterile facts. Such questions are open-ended. Rather than leading to a prescribed “correct” answer, they serve as launching pads for exploring. Teaching for understanding in skill- and process-oriented subjects such as the language arts and math cultivates a metacognitive awareness of how and why specific skills are beneficial and when they are best applied. Essential questions serve as doorways to understanding. Essential questions such as these are recursive in nature; that is, we don’t just ask them once. They are used to frame larger ideas and processes and thus are meant to be revisited. Indeed, as students deepen their understanding over time, we expect more sophisticated and supported answers. Teachers who regularly use essential questions often note that the line between teaching and assessing becomes blurred. In fact, a straightforward and practical strategy is to pose an essential question at the beginning of instruction for diagnostic purposes. Initial student responses reveal what students know (or think they know) about the topic at hand, while exposing misconceptions that need to be targeted.

Remember “Wait Time I and II.”

Provide at least five seconds of thinking time after a question and after a response.

Call on students randomly.

Avoid the pattern of calling only on those students with raised hands.

Use probes and follow-ups.

“Why?” “Can you explain?” “Do you agree?” “How do you know?” “Please give an example.”

Cue responses to open-ended questions.

“There is not a single correct answer to this question. I want you to
consider alternatives.”

Ask students to “unpack their thinking.”

“Describe how you arrived at your answer.”

Periodically ask for summaries.

“Could you please summarize the key points of ______ [the text, the speaker, the film, our discussion] thus far?”

Play devil’s advocate.

Require students to defend their reasoning against different points of view.

Survey the class.

“How many people agree with ______ [this idea, the author’s point of view, that conclusion]?”

Pose metacognitive/reflective questions.

“How do you know what you know?” “How did you come to understand this?” “How might you show that you understand?”

Encourage student questioning.

Provide opportunities for students to generate their own questions.

Use think-pair-share.

Allow individual thinking time and discussion with a partner, and then open up for class discussion.

***The 6 Facets as instructional tools: (CHAP 3 also)

Now we consider the six facets as a framework for generating learning activities. Although originally conceived as a set of indicators of understanding, the facets have proven to be useful in generating ideas for “hooking” students around a topic, engaging them in higher-order thinking, causing them to consider other points of view, and prompting self-assessment and reflection. (Explanation, interpretation, perspective, self-knowledge, empathy, application) The facets also play a helpful role in responsive teaching. When students display preferences and strengths in certain ways of thinking, the facets allow students to explore content in diverse ways. For
instance, some teachers have students choose one or two facets to use in exploring a topic. The goal is not to try to come up with activities and assessments that use all of the facets all of the time. Instead, one chooses those facets that will most meaningfully engage student thinking about particular content and serve as appropriate indicators of understanding that content.

***The WHERETO Framework:

W = How will I help learners know what they will be learning? Why this is worth learning? What evidence will show their learning? How their performance will be evaluated?

*Learners of all ages are more likely to put forth effort and meet with success when they understand the learning goals and see them as meaningful and personally relevant. The W in WHERETO reminds teachers to communicate the goals clearly and help students see their relevance. In addition, learners need to know the concomitant performance expectations and assessments through which they will demonstrate their learning so that they have clear learning targets and the basis for monitoring their progress toward them.

H = How will I hook and engage the learners? In what ways will I help them connect desired learning to their experiences and interests?

*The best teachers have always recognized the value of “hooking” learners through introductory activities that “itch” the mind and engage the heart in the learning process. Therefore, we encourage teachers to deliberately plan ways of hooking their learners to the topics they teach.

E = How will I equip students to master identified standards and succeed with the targeted performances? What learning experiences will help develop and deepen understanding of important ideas?

*Coming to understand requires active intellectual engagement on the part of the learner. Therefore, instead of merely covering the content, effective educators “uncover” the most enduring ideas and processes in ways that engage students in constructing meaning for themselves. To this end, teachers select an appropriate balance of constructivist learning experiences, structured activities, and direct instruction for helping students acquire the desired knowledge, skill, and understanding.

R = How will I encourage the learners to rethink previous learning? How will I encourage on going revision and refinement?
*Over time, learners develop and deepen their understanding by thinking and rethinking, examining ideas from a different point of view, exploring underlying assumptions, receiving feedback, and revising. Just as the quality of writing benefits from the iterative process of drafting and revising, so, too, do understandings become more mature. The R in WHERE TO encourages teachers to explicitly include such opportunities.

E = How will I promote students’ self-evaluation and reflection?

*Capable and independent learners are distinguished by their capacity to set goals, self-assess their progress, and adjust as needed. Yet one of the most frequently overlooked aspects of the instructional process involves helping students develop the metacognitive skills of self-evaluation, self-regulation, and reflection. Teachers support these competencies by providing opportunities for learners to regularly self-assess and reflect on their learning. A natural way of promoting student self-assessment and reflection is through asking questions such as the following:

What do you really understand about ________? What is still confusing?

How could you improve ________? What would you do differently next time?

T = How will I tailor the learning activities and my teaching to address the different readiness levels, learning profiles, and interests of my students?

*The T in WHERE TO points to the importance of tailoring teaching so as to address differences in students’ identified needs and strengths (i.e., readiness levels), interests, and preferred learning styles. Much of this book provides suggestions for such differentiated instruction.

O = How will the learning experiences be organized to maximize engaging and effective learning? What sequence will work best for my students and this content?

*Finally, helping students achieve deep understanding of the big ideas calls for carefully organized learning experiences. The O in WHERE TO simply reminds teachers to carefully consider the order or sequence of learning experiences as they decide the best means of reaching the desired results with the diverse group of learners they serve.

****Rather than having students master all of the basics before engaging in more authentic application, effective teachers immerse their students in meaningful and challenging tasks and problems.

Understanding by Design (UbD) primary goal is delineating and guiding application of sound principles of curriculum design. It is predominantly a curriculum design model.

Differentiated Instruction (DI) focuses on whom we teach, where we teach, and how we teach. Its primary goal is ensuring that teachers focus on processes and procedures that ensure effective learning for varied individuals. DI is predominantly an instructional design model.

Axioms are fundamental principles of UbD. Corollaries demonstrated the way in which DI works to ensure that each student will have access to and support for success with the axioms.

Axiom 1

The primary goal of quality curriculum design is to develop and deepen student understanding.

Corollaries for Axiom 1

All students benefit from and are entitled to curriculum that develops and deepens their understanding.

Given variance in student ability, experience, opportunity, language, interest, and adult support, they will grow at different rates and require varied support systems to develop and deepen their understanding.

Axiom 2

Evidence of student understanding is revealed when students apply (transfer) knowledge in authentic contexts.

Corollaries for Axiom 2

Such authentic applications will reveal varying degrees of proficiency and sophistication in students’ knowledge, understanding, and skill.

The most effective teachers use the evidence of variance in student proficiency to provide opportunities and support to ensure that each student continues to develop and
deepen knowledge, understanding, and skill from his or her current point of proficiency, interests, and learning preferences.

Axiom 3

Effective curriculum development following the principles of backward design (described in Chapter 3 and explored throughout the book) helps avoid the twin problems of textbook coverage and activity-oriented teaching in which no clear priorities and purposes are apparent.

Corollaries for Axiom 3

All learners benefit from and should receive instruction that reflects clarity about purposes and priorities of content.

Struggling learners require focus on the truly essential knowledge, understanding, and skill of a unit to ensure that their efforts are most efficient and potent in moving them forward in reliable ways.

Advanced learners need challenge predicated on what is essential in a discipline so that their time is accorded value and their strengths are developed in ways that move them consistently toward expertise in the disciplines.

Axiom 4

Regular reviews of curriculum and assessment designs, based on design standards, provide quality control and inform needed adjustments. Regular reviews of “results” (i.e., student achievement) should be followed by needed adjustments to curriculum and instruction.

Corollaries to Axiom 4

Results of reviews will inevitably show variation among students in essential knowledge, understanding, and skills.

Results-based adjustments to curriculum and instruction should be targeted to the individual as well as to the class as a whole.

Results-based adjustments will require flexible use of time, teacher attention, materials, student groupings, and other classroom elements to ensure continued development and deepening of students’ understanding.

Axiom 5
Teachers provide opportunities for students to explore, interpret, apply, shift perspectives, empathize, and self-assess. These six facets provide conceptual lenses through which student understanding is assessed.

Corollaries to Axiom 5

All students should be guided and supported in thinking in complex ways.

It is not the case that struggling learners must master the basics before they can engage in thinking. Rather, evidence clearly suggests that for most students, mastery and understanding come through, not after, meaningful interaction with ideas.

Nonetheless, students will differ in the level of sophistication of their thinking and understanding at a given time.

Teachers should be prepared to provide opportunity and support to continually develop students’ understandings and capacities as thinkers.

Axiom 6

Teachers, students, and districts benefit by “working smarter” and using technology and other vehicles to collaboratively design, share, and critique units of study.

Corollaries to Axiom 6

Students also benefit when teachers share understandings about students’ learning needs, classroom routines, and instructional approaches to ensure that each student develops knowledge, understanding, and skills as fully as possible.

A routine part of collaboration in academically diverse classrooms should occur between teachers and specialists who have expert knowledge about student needs and instructional approaches most likely to respond effectively to those needs.

Technology should be used to address varied learner needs and to assist the teacher in keeping track of student growth toward important curricular goals.

Axiom 7

UbD is a way of thinking, not a program. Educators adapt its tools and materials with the goal of promoting better student understanding.

Corollaries to Axiom 7

Differentiated instruction is a way of thinking, not a formula or recipe. Educators draw on, apply, and adapt its tools with the goal of maximizing knowledge, understanding, and skill for the full range of learners.
Effective differentiation guides educators in thinking effectively about whom they teach, where they teach, and how they teach in order to ensure that what they teach provides each student with maximum power as a learner.


These standards are intended to focus teaching and learning, guide curriculum development, and provide a basis for accountability systems. Despite all good intentions and many positive effects, the standards movement has not solved the “overload” problem.

Some states and provinces have attempted to address one or both problems by publishing companion “clarification” documents to explain the intent of the standards, identify more specific grade-level benchmarks, and specify performance indicators. Nonetheless, the challenges of content overload persist.

Planning Backward:

Stage 1. Identify desired results. What should students know, understand, and be able to do? What content is worthy of understanding? What “enduring” understandings are desired? What essential questions will be explored?

Stage 2. Determine acceptable evidence. How will we know whether students have achieved the desired results? What will we accept as evidence of student understanding and proficiency?

Stage 3. Plan learning experiences and instruction. What enabling knowledge and skills will students need to perform effectively and achieve desired results? What activities, sequence, and resources are best suited to accomplish our goals?

Stage 1: we identify desired results, these established goals serve as a focal point for teaching all students

Stage 1 should not be differentiated

Stage 2 may be differentiated

Stage 3 should be differentiated

Essential attitudes and skills of differentiated instruction

1. They establish clarity about curricular essentials.
   a. When learning outcomes are powerful and belong to everyone in the class, the teacher is able to communicate to the students the importance of the classroom agenda and the capacity of every student to benefit from and contribute to that agenda.
   b. Curriculum based on the important concepts and principles of the disciplines is more likely to be engaging to students and link their particular life experiences and interests with the curriculum.
   c. Curriculum based on enduring understandings is more flexible in its “entry points” for students than is a largely fact-based, linear curriculum of coverage.
   d. When a teacher is clear about the enduring understandings of a lesson she’s more likely to be at ease in offering students options to explore and express learning in a mode appropriate for the student’s learning profile.

2. They accept responsibility for learner success.
   a. Get to know each student as a means of teaching him or her effectively.
   b. Continually map the progress of students against essential outcomes.
   c. Find alternate ways of teaching and learning to ensure growth of student.
   d. Send messages to students that if something didn’t work today we will be back at it tomorrow and the day after until success occurs.
   e. Provide support systems that model for them what quality work looks like and what it takes to attain quality results.

3. They develop communities of respect.
   a. Attend to student in way that communicate respect & positive expectation
   b. Seek out, affirm, and draw on the unique abilities of each learner.
c. Elicit and value multiple perspectives on issues, decisions, and ways of accomplishing the work of the class.

d. Make sure all students are called upon to participate regularly.

e. Help identify & adhere to constructive way of interacting with one another.

f. Design tasks that enable student to make contributions to work of group.

e. Ensure that the languages, cultures, and perspectives of varied cultures are represented in the important work of the group.

f. Help reflect on the quality of their contributions to develop community.

g. Seek and respond to students’ ideas about how to foster respect in class.

4. They build awareness of what works for each student.

a. Make opportunities to communicate individually with individual learners.

b. Garner information on students’ interests, dreams, and aspirations.

c. Understand student profile of academic strengths and weaknesses.

d. Seek to understand learning profile variance in groups and individuals.

e. Observe students working individually, in small groups, and in the class as a whole with the intent to study factors that facilitate or impede progress for individuals and for the group as a whole.

f. Create opportunities to learn from parents, guardians, and community members about students.

5. They develop classroom management routines that contribute to success.

a. Have clear image of what class will look like when it functions smoothly.

b. Establish high expectations for smooth operation of class routines as an important factor in student growth.

c. Study operational routines to make sure they are working well for individuals, the class, and the teachers.

d. Work with students to develop a rationale and rules for effective classroom operation.

e. Make clear criteria for success in varied roles and in varied tasks.
f. Gather information from students about what is and is not working well for them as individuals and as part of small groups.

g. Seek student advice on making the class operate effectively.

h. Enlist students in performing routine functions whenever possible.

i. Help students perform those functions effectively and efficiently.

j. Ensure everyone’s participation in making the classroom work.

6. They help students become effective partners in their own success.

   a. Help students understand, accept, and benefit from their differences.

   b. Nurture a growing awareness of students’ particular strengths.

   c. Explain the benefit in extending students’ strengths.

   d. Help students acknowledge areas of weakness.

   e. Facilitate ways to remediate or compensate for weaknesses.

   f. Guide students in developing a vocabulary related to learning preferences and in exercising those preferences that facilitate their growth.

   g. Ask students to reflect on their own growth, factors that facilitate that growth, and likely next steps to ensure continual growth.

   h. Support students in setting and monitoring personal learning goals.

   i. Provide opportunities for students to talk with their parents or guardians about their growth and goals.

7. They develop flexible classroom teaching routines.

   a. Allow for students’ different paces of learning.

   b. Gather both basic and supplementary materials of readability levels that reflect different cultures, connect varied interests, and are in different modes.

   c. Experiment with ways to rearrange furniture to allow for whole-class, small-group, and individual learning spaces.

   d. Vary student groupings so that they enable students to work with peers who have similar and dissimilar interests, similar and dissimilar learning preferences, in random groups, in groups selected by the teacher, and in those students select themselves.
e. Regularly teach to the whole class, to small groups based on assessed need, and to individuals.

f. Teach in a variety of ways to accommodate students’ varied readiness needs, interests, and learning preferences.

g. Ensure that grades communicate both personal growth and relative standing in regard to specified learning outcomes.

8. They expand a repertoire of instructional strategies.

a. Use a variety of strategies when they present to the class as well as when students are actively engaged in learning.

b. Use strategies that enable them to address readiness, interest, and learning profile needs.

c. Guide students in understanding how to work with instructional approaches effectively.

d. Help students reflect on which strategies work well for them, why that might be the case, and what that reveals to the student about him- or herself as a learner.

9. They reflect on individual progress with an eye toward curricular goals and personal growth.

a. Use pre-assessment data to begin planning for both in-common learning goals and individual learning needs.

b. Use ongoing assessment to ensure as close a match as possible between instruction and learner needs.

c. Keep track of student growth relative to in-common goals.

d. Observe personal growth relative to a student’s particular profile.

e. Engage students in setting personal goals and evaluating progress.

f. Reflect consistently on individual and group growth in order to adjust instruction in ways of greatest benefit to individuals and the class as a whole.

g. Help parents understand a student’s personal growth and standing relative to in-common goals.

**Differentiated or responsive teaching really stems from an affirmative answer to three questions**
1. Do we have the will and skill to accept responsibility for the diverse individuals we teach?

   To develop positive ties with students to encourage their growth
   To see their dreams and uncertainties
   To study and respond to their cultures
   To work with students to build positive learning communities

2. Do we have a vision of the power of high-quality learning to help young people build lives?

   To know what really matters in the discipline
   To ensure student understanding of what matters most
   To discover what’s relevant and compelling to individuals
   To build student engagement in learning

3. Are we willing to do the work of building bridges of possibility between what we teach and the diverse learners we teach?

   To seek out students’ strengths and deficiencies
   To develop flexible teaching routines
   To create learning options for varied needs
   To coach for success
   To monitor individual growth against goals


Student barriers to learning

1. personal barrier
2. identity as a barrier to achievement

3. learning problem as obstruction

4. idiosyncratic learning need inhibits achievement

Why teach responsive

1. Attending to relationships contributes to student energy for learning

2. Attending to learning environment builds a context for learning

3. Attending to student backgrounds and needs builds bridges that connect learners and important content

4. Attending to student readiness allows for academic growth

5. Attending to student interest enlists student motivation

6. Attending to student learning profiles enables efficiency of learning

Approaches to responsive teaching

1. Find ways to get to know students more intentionally and regularly

2. Incorporate small-group teaching into daily or weekly routines

3. Learn to teach to the high end

4. Offer more ways to explore and express learning

5. Regularly use informal assessments to monitor student understanding

6. Teach in multiple ways

7. Use basic reading strategies throughout the curriculum

8. Allow working alone or with peers

9. Use clear rubrics that coach for quality

10. Cultivate a taste for diversity


How to think about differences
Class 1: Characteristics that all students share: commonalities in cognition, development, emotion, and motivation

Class 2: Characteristics that vary across students, but that are classifiable: often differ across students may provide useful categories into which we can group individuals ie. four learning styles, ability leveling, or by interests

Do so under specific conditions 1) the categories are meaningful 2) know which features to pay attention to categorize students successfully 3) distinction drawn is educationally meaningful, to learn better

Class 3: Characteristics that vary across students and are not classifiable: students’ background experiences and their personalities, get to know your students as individuals

Common Cognitive characteristics

1. Things the cognitive system needs to operate effectively (must haves)

2. Methods that seem to work well to help most kids meet those needs (could dos)

Must haves

1. Factual knowledge: Students can’t develop thinking skills in isolation, they need to develop those skills as they acquire domain knowledge

2. Practice: practice some knowledge and skills until they become automatic

3. Feedback from a knowledgeable source

Could dos

1. Distribute study time: spread the time over a few days

2. practice recalling facts: probing memory in an effort to locate a bit of knowledge is an excellent way to ensure that the knowledge becomes permanently affixed in memory

3. Cycle between the concrete and the abstract: Don’t emphasize on either you must cycle back and forth with these principles

The purpose of this study was to examine if different measures of oral reading fluency would relate differentially to reading comprehension performance. Two groups of students were used for this research. One group, called the ORFD, showed difficulties with nonsense-word oral reading fluency, real-word oral reading fluency, and oral reading fluency of connected text. The second group, called the CTD, demonstrated difficulties in oral reading fluency of connected text in combination with typical nonsense-word and real-word oral reading fluency skills. Participants were second-grade students who were part of different reading intervention studies. Data was gathered from nonsense-word oral reading fluency, real-word oral reading fluency, oral reading fluency of connected text, and reading comprehension measures that were collected pre-intervention. The materials used for the study were the CTRRPP, TOWRE, GORT-IV, and WIAT assessments. Results showed across both samples of students, that real-word oral reading fluency was most strongly related to reading comprehension performance compared to non-sense word oral reading fluency and oral reading fluency of connected text. These findings may be effective in identifying problems with reading comprehension. Overall, these results show that if a student performs poorly on real-word oral reading fluency, comprehension should be assessed due to relationships between these skills. Once these difficulties have been detected, more comprehensive evaluations can be conducted to get more specifics.