There's a great differentiated instruction analogy in a scene from Rodgers and Hammerstein's movie, The Sound of Music. At one point, Maria Von Trapp (Julie Andrews) takes the seven children on a bike ride. As they ride, some children follow the teacher, some ride alongside the teacher, and some move ahead. One is carried piggyback style on Maria's back because she can't ride at all. Despite everyone's different rate and competency with bike riding, the group is moving as a whole; everyone is on the trip, advanced and struggling bike riders, and no one is left behind. The teacher scaffolded the instruction for some of them, and she allowed the more advanced children to surpass the teacher in execution of the skill. Differentiated Instruction expert Dr. Carol Ann Tomlinson puts it succinctly: 'We might change the layout of the track, but all students are still in the race.'

Large student loads, limited time periods, and curricular mandates make it challenging to adjust instruction for the unique needs of today's diverse learners. In the secondary levels, we factor in 160 morphing humans going through puberty with all its accompanying confusion, inconsistency, and high energy; we are overwhelmed. To survive, some teachers teach in a way that's easiest for themselves and hope students get something out of it. That expends more energy in the long run, however, because those teachers are forced to go back and remediate students who never learned. In an era of standards, accountability, and NCLB, this is not acceptable.

Teachers can differentiate instruction successfully if they are experts in multiple facets of their jobs. To only know one's subject doesn't cut it with today's diverse populations, and to know only what the basal textbook says about our topics doesn't work either. As highly accomplished professional educators, we have to be multi-talented, highly trained thinkers, not just pseudo postal workers delivering someone else's mail (i.e. state-mandated curriculum) and documenting those students who can't make use of it.

It's much easier to differentiate instruction if we are experts in four areas: our students, the curriculum, cognitive theory, and differentiated instruction practices. All four must be in play...
if we are to teach effectively. If one of these is not a strength for a teacher, then it is suggested as the direction for professional growth in the years ahead.

**Student Expertise**

Without expertise in what is developmentally appropriate for students of the age we teach, we cannot effectively apply any teaching approach, let alone differentiated instruction. Middle school teachers, for example, require an expertise in young adolescents, knowing their students are no longer elementary-age but are not ready for high school approaches either. In order for cognition and learning to take place, young adolescents require physical activity, opportunities for self-definition, structure and clear limits, meaningful relationships with adults, competence, and creative expression. (Turning Points, 2000) Information and skills do not go into long-term memory unless these needs are satisfied.

Sometimes, then, we don't adjust content, process, products or anything else; we just have to make sure students' developmental needs are being met as we work. If they are, they can learn effectively. If we teach blind to the needs of our students, we're wasting their time and our own, however, because cognition doesn't happen if these needs are met. And sometimes what we modify as we differentiate instruction is in response to one of these missing elements in a particular group of students' lives. These three students need more opportunity to define themselves, we think, and that's what we change for them in order for them to maximize their learning.

**Subject Expertise**

We must be experts in our discipline as well. For example, as a math teacher, do I teach fractions first, or decimals? And where do percentages fit into the sequence? Do I ask students to turn to page 74 or page 174 in the textbook? Some students require one sequence, but others would benefit from something different. As a subject expert, I can determine how one set of information serves as a foundation or subset of another. I can help students identify connections and teach for meaningful learning. Teaching isn't telling, nor is it presenting. This is where mediocre teachers stop. Accomplished teachers tell and present in such a manner that students find the information and skills meaningful. We don't say, 'I taught it, now it's up to students to learn it,' and we don't turn to the next page in basal text because it's the next page in the basal text. We turn to whatever page makes the most sense based on what we know about our students and our subject.

Here's an ineffective teacher's curriculum presentation: cp rabc f bicn nmt v. The student sees it as incoherent. If he's mature and supported by the adults in his life (neither one a sure thing), he buckles down and memorizes the information using a mnemonic device, but easily forgets the information once he's played the game of school and jumped through artificial hoops (tests). Here's a highly effective teacher's curriculum: cpr abc fbi cnn mtv. It's the same curriculum the first teacher had, but the teacher changed the pacing of its delivery so students could make sense of it and bring meaning to it. He used his subject expertise and knowledge of his students to re-group it. This is the teaching our communities desire, not a teacher-proof curriculum where everyone is on chapter nine at week twelve. What kind of society will we have if teachers are forced to subject students to such insensitive and ineffective lock-step fashion regardless of new knowledge and needs of students' Not the kind that protects democracy.
It's dangerous to say this to educators, but here it goes: What we teach is irrelevant. It doesn't matter what we teach. What matters is what students take with them when they leave us at the end of the year; this is our greatest testimony as educators. Do we teach in a way that is likely to be retained beyond just parroting information back on a test? If we're teaching for long-term retention, then we employ best practices and teach a developmentally appropriate curriculum. If the curriculum is the problem, we educate policy-makers to make changes. We do not teach something politically motivated but pedagogically unsound. As highly effective practitioners, we're the ones with the expertise, and having such expertise gives us an implied mandate to lead our communities in the right direction.

**Cognitive Theory Expertise**

Solid expertise in cognitive theory is also vital. We can deftly apply differentiated instruction principles only as far as we understand how our students' minds work. For example, nothing goes into long-term memory unless it's attached to something already in storage. So, we create prior knowledge where there is none. If we're teaching something of major importance on Wednesday, and it's clear that seven students have no personal background with the intended concepts, we give the larger class an anchor activity on Monday, and we provide these seven students with the necessary background experience so they can fully participate and appreciate Wednesday's learning to come.

With solid footing in cognitive theory, we can head off many potential hurdles to student success. Our ability to retrieve information and apply it such as students do on tests has almost everything to do with how it enters our minds the first time we experience it, not so much how we studied it down the road. In order to maximize learning, then, we structure information as students first receive it. For instance, we would never tell students to read chapter 15 and summarize it without first explaining the chapter's structure or helping students to determine its structure:

>'This is a compare and contrast of Frederick Douglas and Abraham Lincoln. Their similarities and differences are examined in each of the following five areas: childhood, education, careers, struggles, and politics. Given this knowledge before we begin reading, how might we set up our summarizations''

Students set up Venn diagrams and other graphic organizers that allow them to compare and contrast the two figures. If a student asks, 'What information from the chapter will be on the test' we don't glibly reply, 'Just read and learn every fact from the whole chapter. I reserve the right to choose anything I want from the chapter to put on the test. I'll know whether or not you read it carefully.' This isn't teaching. This is playing the game of school. This teacher is out to document deficiencies, not teach so that students learn. To be clear, the goal is not for students to read every word of the chapter, which is what the teacher promotes as the goal to students. The goal is for students to learn the similarities and differences between Douglas and Lincoln in the areas listed. It requires repeated visits to what we consider essential and enduring in our lessons in conjunction with solid understanding of cognitive theory.
Differentiated Instruction Expertise

If we know only one model of instruction or one way to teach something, we're setting our students and ourselves up for failure. Professor, author, and literacy expert, Kylene Beers freely admits that for years she had only two ways to differentiate instruction for students who struggled: teach louder and slower. Her experiences convinced her to move beyond such ineffective practices, however, and her students are now achieving at dramatically higher levels. She and other successful educators embrace the lexicon and practices of differentiated instruction as the first step to mastering this thing called, 'teaching.' Successful differentiated instruction teachers give themselves three or more years to really feel savvy with differentiated instruction practices, realizing it's a journey, not a destination.

Let's make it compelling for teachers and administrators to explore differentiated instruction principles and practices such as scaffolding, tiered lessons, assessment informing instruction, respectful tasks, compacting curriculum, 'What is fair is not always equal,' readiness-interest-learning profile grouping, foundational versus transformational, structured versus open-ending, and flexible grouping. Let's ask what our communities would be like if differentiated instruction for students every time they needed it, K to 12th grade, and what they would be like if we never differentiated instruction when they needed it, K to 12th grade.

Many teachers are parents, too. They hope their children's teachers are experts in these areas, and that they successfully integrate that expertise to maximize learning for their students. In my own case, my children have occasionally needed differentiated approaches, for both advanced and early readiness levels. If I'm stuck for ideas on how to help my children at home with what they're learning in school, I've contacted their teachers in search of advice, asking, 'What are some of the ways you differentiate instruction for students with diverse needs like this' There's no emotional inflection, no accusation -- just a sincere interest in helping my child.

The question is usually met with silence on the other end. A moment later, the teacher asks, 'Are you a teacher' I respond that I am, and I wait. Each time I have asked this question of my children's teachers, however, I've been initially disappointed with the response. When my child demonstrated 100% proficiency on a pre-test on what's going to be taught for the next five weeks, the teacher responded that the unit would be a good review. There was no mention of compacting the curriculum or extending my child's exploration of the subject beyond the basal text. In one situation in which my child was struggling, the teacher said, 'There's just nothing else we can try at this point. We'll have to hope he gets it over the next few years.' Not one of the teachers has been able to verbalize how to differentiate instruction in general, let alone offer something specific for my child. The most common response was to work with the child after school one day next week.

'Red flags' should go off in our minds if a teacher can't explain how to differentiate instruction, at least in general terms. As a parent, I worry about my child in such classes. Sometimes, though, it isn't a lack of expertise, but a different lexicon that prevents teachers from responding. This is fine -- they are differentiating instruction, but they are using different terms. If the teacher has no background in cognitive theory, differentiated instruction, their subject, or what is developmentally appropriate, however, they need to brush up on them.

What happens to the students in the mean time' Being a parent who is also a teacher, I can walk the talk and advocate for my child ' I know what's going on and how to do it. Who's
going to advocate for all the children who have parents who are not teachers' The classroom teacher. That advocacy is achieved only as teachers successfully incorporate their expertise with their discipline, their students, cognitive theory, and differentiated instruction practices.

While most concertos have three distinct movements, the differentiated instruction concerto has four. Maria in The Sound of Music bike ride enabled her students to progress together, each in their own way and at their own pace because she successfully blended discipline (knowledge and skills), development appropriateness, cognitive theory, and differentiated instruction practices. She knew what she was doing. With just one of these aspects missing from the concerto, the music would fall flat and one or more students would be left behind. As highly accomplished professional educators we can compose successful concertos with these four distinct movements, concertos worth performing with each new group of diverse students we serve.

3 more listings about/by Rick Wormeli:
Rick Wormeli: Differentiating Instruction - Mentor Teacher

Books/Media/PDFs:
1 - Day One & Beyond: Practical Matters for New Middle-Level Teachers
2 - Meet Me in the Middle: Becoming an Accomplished Middle-Level Teacher

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