PUT THE COOKIES ON THE BOTTOM SHELF!

by Dennis L. Peterson

Aim high. Stretch your students. Make them reach mentally. Teach them critical thinking skills. Emphasize higher-order skills. Set the standard higher.

These are all worthy goals. The difference between their successful implementation and academic disaster lies in the means used to accomplish them. Too often well-meaning teachers strive to reach those goals in ways that ensure that only the top few students in every class ever reach them and that everyone else struggles to get by or—far worse—comes to detest learning, a natural process that is initially, and should continue to be, innately enjoyable. They set the standard too high, talk to the students in a vocabulary that is essentially an unknown tongue for them, and teach to only the créme de la créme, losing all others in the process. That is *not* good teaching.

The way to achieve the high standard, to make the students stretch themselves, and to help the students develop critical thinking skills—while also allowing the students to *enjoy* the learning process—is to "put the cookies on the bottom shelf."

An effective teacher teaches such that the lowest achiever, the least capable student in the classroom, can understand. If the *lowest* student can understand a concept, certainly everyone else will be able to.

The Problem

A four-year-old boy and his father are enjoying a walk together in the field near their home when the son cries out, "Daddy! Daddy! It hurts!" He holds up his index finger for the father to examine. The father bends down, looks intently at the finger, and then exclaims professorially, "That, my son, is a loose triangular tag of membranous tissue attached at the proximal portion in the medial nail fold. Now it occurs when. . . .

Before he can continue his encyclopedic explanation, his son has forgotten the hangnail and is off chasing a black—and-yellow butterfly.

The problem is twofold: the father tried to give his son more than the boy needed at the time, more than he could comprehend at his current stage of cognitive development, and used language that was beyond the lad's grasp. Rather than

putting his answer "on the bottom shelf" where any four-year-old could understand it, he gave an answer straight from *Stedman's Medical Dictionary*, a reference for medical professional. That ty pe of vocabulary is to be expected from medical professionals talking to each other but is not at all helpful to a child.

The same thing happens every day in classrooms for a variety of reasons. Brilliant students who have become teachers are guilty of it. Teachers who forget the developmental levels are guilty of it. Teachers who forget the developmental levels and capabilities of their primary audience (the students) are guilty of it.

Also guilty are lazy teachers, those who think that all they have to do to teach a junior high class is to share their college-level class notes—verbatim and in their entirety, perhaps in a nifty PowerPoint presentation that allows them to show off their technical skills and the capabilities of their latest laptop acquisition.

If a student (or even several students) in a particular class *can* understand and learn something, it does not necessarily mean that *all* students in the class *can* or *should* learn it. John Stuart Mill learned several languages before he was ten, but that is not justification for trying to get *our* children to do that. Mill was a rarity, not the exemplar of what every kid should be able to do. Some classrooms will probably have one to two students who could become stars, but our teaching must not be toward them; rather, it should be toward reaching the average child. That does not mean that we ignore the need to enrich the education of the stars; they are an *additional* responsibility, not the *primary* target.

It is much easier and more enjoyable for the teacher to address needs and interests of the more advanced student whose level of understanding is nearer his or her own than to work patiently with the common, average, or slower students who make up the vast majority of our classes. (Unlike Garrison Keillor's imaginary town of Lake Wobegon, not all of *our* students are or can be "above average.") The teacher is called to ensure that *all* students learn, not just the "stars."

The ever-present tendency is to ignore or bypass the average and low students with callous disregard, to write them off as of no consequence. Remember, however, that history shows that it is not generally the "stars" whom God ends up using most in life but rather the average student, the plodder, the one who struggles and yet perseveres over time because a teacher cared enough to work with him or her.

According to Joseph Stowell (2009), in New Testament times, Jewish students went through rabbinical schools until they were about 13 years of age, at which

time the local rabbi selected the brightest students for further training with him. Those whom he did not choose were expected to enter some kind of trade. Stowell posits that Christ's disciples had not made the cut of their local rabbi but that Jesus called them nonetheless, and 11 of them went on to start the ministry of spreading the Gospel. Stowell's conclusion is that we should be focusing our time on the average students. This is what it means to put the cookies on the bottom shelf.

We hear and read a lot about age-appropriate educational practices in early childhood, but it is just as critical at later stages of education, all the way into adolescence and even adulthood. Some teachers think that to teach higher-order thinking skills they must use the complicated, polysyllabic language of the philosophers who enthrall them. Although there is a place for philosophical debates and deep, esoteric discussions of moral issues, it is *not* in the junior high or high school classroom or textbook activities. Detailed discussions of the practice of late-term abortion or sexual perversions that plague society might be critical in some venues, but the junior high classroom is *not* one of those venues. Similarly, we cannot expect our students to grasp and solve problems about which the deepest thinkers and theologians have debated for centuries. If we are to put the cookies on the bottom shelf where *all* of our students can reach them and enjoy their benefit, our teaching must be primarily concrete, substantive, and objective.

Another difficulty that teachers encounter is proud parents who want their children to achieve above and beyond the average students, who want to live out their own fantasies through their children. They are the parents who insist that their child be placed in honors or advanced placement classes regardless of the child's innate strengths or abilities. In many cases, the desire is more for the parents' bragging rights than for the child's best interests. Elkind (1988) posits that the chief pressure on young people today is "the pressure for early intellectual attainment. . . ."

Responding to such parents' demands, our schools are tempted to begin pushing for higher and earlier achievement from the students. Hirsh-Pasek and Golinkoff (2003) decry this "adultification of children." We are "taking childhood away from children and treating them like miniature adults," they declare. When this author was a child, students learned to read in first grade; there was no such thing as kindergarten. In the next generation, reading was taught in kindergarten. Now, in some schools, the ability to read is a prerequisite for acceptance into kindergarten.

Although "our whole society is built around speed and getting things done in the minimal time possible," faster is not necessarily better. It is not necessarily best for the students always to strive to "finish the curriculum" or do everything suggested

in the curriculum. Attempting to do so is following the erroneous idea of Jerome Brunner that "we can teach children any subject at any time. . . ." As Kuhn (1979) declares, "Attainment of concrete operations at an earlier average age remains a theoretically possible goal, but also lacks a clear rationale." To the extent we succumb to this tendency, we necessarily leave behind the average student or slower learner; we move the cookies to the *highest* shelf.

Most curriculum materials are written with far *more* than enough for the teacher and students to use. The teacher should, based on an accurate first-hand knowledge of his or her students, choose activities or suggestions that best fit those particular students' needs. This is education based on the principle of putting the cookies on the bottom shelf.

The Solution

The keys to putting the cookies on the bottom shelf are an accurate knowledge of (1) what is *appropriate* for the age group and (2) what the lowest-achieving student can do or learn. We must remind ourselves of who it is we are teaching and why. It is knowing the individuals entrusted to our care and being concerned about their needs and abilities. Ginsburg and Opper (1969) note the differences between adolescents' "optimum level of functioning" (what some of them *can* do) and their "typical performance," which are not the same.

Adolescents, they reveal, have just discovered their capabilities for abstract thought, but that does not mean they are ready to tackle deep philosophical or moral issues. They are idealists, not realists. They still believe they are immortal. To learn and develop reasoning skills, they must have "developed the proper preliminary cognitive structures," meaning that they first have to have mastered skills at the concrete level, which many of them have not yet done. The student is "not just a miniature, although less wise adult, but a being with a distinctive mental structure which is qualitatively different from the adult's" (Ginsburg & Opper).

Part of knowing the student is recognizing what he or she is *ready* to learn or do. This was essentially the lessons coming from the work of Jean Piaget and his theory of cognitive development. And that recognition can come only from a knowledge of each student's individual learning style. As Tobias (1994) posits, we must discover and study the way our students learn, and then we must teach to their strengths. Failure to do so shows up in teachers' talking above the student's head or beyond him or her and using jargon that the student does not understand. Pai (1973) suggests four ingredients of effective teaching:

(1) Clarity, (2) associations, (3) system, and (4) method. By clarity is meant that the child should not be confused by inappropriate and vague presentations of a subject, but that he should be able to understand the material thoroughly. . . . [T]he new must be related to the knowledge which is already in his mind.

The Practical Applications

Perhaps the single most helpful source of practical suggestions for applying the principles for putting the cookies on the bottom shelf is the classic work $A\ 21^{st}$ Century Perspective of The Seven Laws of Teaching by John Milton Gregory [Walker & Walker (Eds.), 2006]. The key ingredient, according to Gregory's third law, is language. "The language used as a medium between the teacher and student must be common to both." In his fourth law, Gregory says, "The lesson to be learned must be explained in terms of knowledge already known by the learner. . ." Stated as rules, these two laws would be, in Gregory's words, as follows:

- "Use words understood in the same sense by both the teacher and the student. The language should be clear and vivid to both."
- "Begin with what is already well known to the student about the lesson or subject and proceed to the unknown material by single, easy, and natural steps."

"The best teachers," Gregory concludes, "use well-chosen words that raise the clearest images and excite the highest action in their students' minds." Using language that is so complicated and esoteric as to be above the heads of the common student effectively ends the educational process, or, as Gregory put it, "the first new and unknown word introduced in the lesson breaks the chain of thought."

So the teacher should "use the simplest and fewest words that will express the idea." Then, "Repeat a thought in different words if the student fails to understand. . . . This does not mean, however, that we should try to push the student to learn things for which he or she is not ready. "What would be considered thoroughness in a child would be viewed as shallowness in an adult," but that does not mean we should work harder to make the child's understanding match the adult's *now*. Gregory concludes, "To violate this law by trying to force students to learn what they are unprepared to learn serves only to confuse the student" and discourages learning. In short, avoid asking students to perform tasks or learn information

beyond their current cognitive capabilities. Don't ask kids to do what they can't yet do."

Hughes (2001) advises using activities the students enjoy. "Teaching can incline, but not induce. . . ." Remember the adage "You can take a horse to water, but you can't make him drink."

Conclusion

The best teachers take complex concepts and present them simply and meaningfully to their students when the time and subject matter are appropriate and the students are ready to learn them. This does *not* mean "dumbing it down" or being anti-intellectual. It does *not* mean either resorting to mere entertainment or rejecting the teaching of higher-order thinking skills. It does *not* mean teaching junior high and high school students using one's college class notes. And it does *not* mean assigning professional-level materials as "ancillary" or "supplemental" readings.

It *does* mean taking the students from where they currently are, making them stretch (but not too much at once), and guiding them slowly onward, as they are ready and as far as you can take them.

Let's start putting those cookies on the bottom shelf!

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