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Changing the Focus: Master Teacher to Master Learner

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Since the establishment of the first school in the United States, the need to improve education to meet the changing needs of society necessitates the process we call School Reform. From Horace Mann's Common Schools in the 1800's (Brouillette, 2003) to the modern day Effective School movement led by proponents of change Dr. Lawrence Lezotte and Robert Marzano (Marzano, 2003), school improvement focuses on what to teach (curriculum), the best way to transfer required knowledge (instruction), and how to measure proficiency (assessment). Jane Pollock (2007) took these three areas of concern and adds a fourth, feedback, to provide a blueprint teachers can utilize for improving student achievement.

School wide improvement efforts can be difficult to measure due to a multitude of variables. Pollock (2007) however presented a convincing argument that improvement really takes place at the classroom level one teacher at a time. Pollock's (2007) synthesis of ideas and works of many well-known educators including Benjamin Bloom, Madeline C. Hunter, and Robert Marzano provided teachers with a no nonsense guide to improving student learning. The title *Improving Student Learning One Teacher at a Time* can be misleading. While Pollock (2007) does give teachers researched-based advice on improving teaching, the main emphasis is change based on recognizing students are different today and thus to expect real change to occur we must change our approach in the four areas identified. This shift in paradigm is subtle but powerful when we begin to approach education from the viewpoint of producing master learners rather than producing master teachers.

The first principle of Pollock's (2007) Big Four that will be examined deals with curriculum and standards based instruction in particular. The second principle, instruction, examines how teachers can turn off the autopilot that has guided teaching for some time and

instead use a scientific approach to instruction incorporating a teaching schema that is a modified form of the works of Madeline Hunter and Johann F. Herbart. Assessment, the third principle, is grounded in the work of Benjamin Bloom and challenges teachers to provide varied assessments that require students to demonstrate thinking, not remembering. The final principle examined is feedback. Assessment and feedback have traditionally been lumped together but Pollack separates feedback into a category of its own with emphasis on providing students with specific information for improvement.

Curriculum

Teachers often view curriculum as a complicated document where they identify big concepts and then incorporate those concepts within instruction as they guide students through their study of a textbook. Some teachers are privileged enough to be selected to help create a scope and sequence of these concepts so that everyone is assured that they are teaching the required curriculum. Standards-based education has tried to change this textbook-based approach. Many teachers today however are still using their textbook as their curriculum guide rather than a resource to teach learning targets that encompass the content strand.

Pollack (2007) emphasized the need for specific but robust standards as the first step in improving student achievement.

A standards-based curriculum connects each of the grade-level documents to one another by a common set of general statements – or standards- that define parameters of a subject area domain; the teacher's curriculum is a link in a chain connected by standards.

Identifying standards then is the starting point in creating this chain. (p.31)

With standards identified, teachers can benefit from the work of Bloom (1956). Bloom (1956) developed his taxonomy of educational objectives to help educators classify and align content

with assessments. The development of concisely written learning targets, ones that are comprehensive concepts, generalizations, or procedures rather than only statements of daily classroom objectives must integrate the taxonomy's spectrum from knowledge, to comprehension, to application, to analysis, to synthesis, and finally evaluation. The taxonomy's ladder provides a framework to ensure that benchmarks cover declarative knowledge (content mastery) as well as procedural knowledge (skill mastery). This system of using verbs to categorize content benchmarks allows teachers to distinguish when students will need to organize information or require extensive practice (Pollock, 2007).

Standards-based reform ushering in accountability refocused the writing of benchmarks. It is now essential to write learning targets within curriculum documents with the explicit purpose of improving student learning. Teachers, schools, districts, and states are under the microscope of public opinion while taxpayers and stakeholders expect results (Pollock, 2007).

Instruction

Pollock's (2007) "second tenet of the Big Four is to plan and use instructional strategies that help the learner remember and apply information and skills"(p.59). Pollock (2007) describes automaticity as a level of instruction where the teacher would monitor and adjust instructional strategies and automatically transition into a different modality as the situation requires. "This teacher isn't thinking about her teaching as she is delivers it; rather, she is automatically responding to her students' understandings and performances" (Pollock, 2007, p.60).

Experienced teachers believe they teach with automaticity but the reality is that most teach on automatic pilot (Pollock, 2007). Standard operating procedure for teachers means last year's lesson plans are recycled and teaching rarely varies from class to class or year to year. This strategy while comfortable does not take into consideration the dynamic differences in

students or classes. Change in content standards, student needs, or available resources rarely make a significant impact on the approach or delivery. Even when teachers recognize that their students are not engaged in their time-tested lesson, teachers typically think the problem is with their students, not with their delivery. Pollock (2007) suggests this pedagogical stubbornness is a result of modeling the classroom practices teachers themselves have experienced as students.

Pollock (2007) recognized several well-known educators have already proposed effective instructional planning schemas as a way to improve classroom instruction. One of the first was Johann F. Herbart (1776-1841), a German philosopher, known for identifying the academic process of developing scope and sequence documents to guide students through acquisition of knowledge known as apperception. Also described as inductive teaching, apperception included five instructional steps: prepare, present, associate, systemize, and apply. While Herbart's schema was considered revolutionary and student centered at the time, its main purpose was to improve teaching, which has not always improved student learning (Miller, 2003).

A contemporary educator, Madeline Hunter, whose book *Mastery Teaching* (1982) has provided a schema for many modern lesson cycle applications. Hunter's model offers a flexible process with eight steps: set the objective, identify the anticipatory set, input, modeling, check for understanding, guided practice, independent practice, and closure. Many teachers have found this model to be cumbersome and difficult to apply to any lesson. While this is a comprehensive planning tool still used in many schools and teacher preparation programs, the emphasis is still on mastery teaching and not mastery learning (Pollock, 2007).

Improvement in student learning requires a change in pedagogy. Students have changed tremendously over the past 50 years while most of our instructional practices have changed very little (Goodlad, 1984). Responding to this change, Pollack (2007) recognizes that

Today's classrooms are a different place. We celebrate diversity and open the doors of public schools to all children, regardless of race, origin, ability, socioeconomic status, or gender. Appropriately, the focus of our curriculum has expanded to suit this more varied student population, and our school improvement efforts are driven by a commitment to help all the students in our classrooms learn and make progress. (p.16)

Research has shown that the most important factor affecting student achievement is the classroom teacher (Marzano, Pickering, & Pollock, 2001). Improvement in learning then begins with teaching and master teaching produces master learners.

Pollock's (2007) teaching schema for master learners takes the early models for effective teaching, combines the successful components, and refines the focus to provide a new paradigm.

The new schema evolved into six basic steps with one additional floating step:

1. Set the learning goal, benchmarks, or objectives.
2. Access prior knowledge.
3. Acquire new information – declarative or procedural.
4. Apply thinking skills or real-world situation.
5. Generalize or summarize back to the objective.

The floating step: Feedback, feedback, feedback. (p.64)

Pollock (2007) designed the schema so that teaching prepares students to connect new information to prior learning, and retain information for application in a variety of ways.

Teachers who follow Pollock's (2007) schema will plan for instruction with a perspective focused on student learning. "Although it is critical, familiarity with the Teaching Schema for Mastery Learning alone isn't enough; one also needs research-based instructional strategies" (Pollock, 2007, p.70). One of the most important distinctions teachers must make in choosing the

best learning strategy is whether the information presented in the lesson is procedural or declarative. Procedural knowledge requires repetitive practice while declarative knowledge requires an organizational structure to be committed to long-term memory. Pollock (2007) acknowledged the shift in psychological research from behaviorism to neuroscience. The resulting schema then endeavors to cultivate student's thinking rather than modifying their behavior.

Assessment

The third principle of Pollock's (2007) Big Four requires the use of varied assessments to help students demonstrate mastery of learning targets. Meaningful assessments require students to demonstrate understanding through application of knowledge and skills. Simple recall or remembering is no longer enough. Students need to be able to apply their learning, which brings us back to Bloom's (1956) taxonomy. Bloom (1956) understood that testing students for simple recall of knowledge amounts to basic remembering but the rest of the categories in the taxonomy employ strategies for organizing and reorganizing information for a specific purpose. As teachers learn to write their benchmarks using Bloom's hierarchy they will begin to see the thinking involved for students to master those knowledge targets.

Teachers often assess student learning at the lowest level of comprehension, recall, but then students have only committed the new information to short-term memory. For students to transfer information from short-term memory to long-term memory, students must become active in the learning process (Weiss, 2000). When students learn to organize and reorganize information to apply in new ways, they learn to think rather than recite.

The process of teaching students to think has been the focus of advocates of brain-based education. Researchers have learned more about how the brain learns in the last twenty years

than any other time in history (Wormeli, 2006). Cognitive theory and neuroscience are dynamic fields however and therefore we must continue to study the newest applications offered by researchers and educators such as Eric Jensen, Robert Marzano, and Pat Wolfe.

Wormeli (2006) like Pollock (2007) agrees that instruction and assessment should be focused using standards that teachers prioritize according to a hierarchy of concepts and skills. Assessment then becomes a tool to inform instructional decisions. Instruction and assessment constructed upon the same standards then create a continuous improvement cycle for instruction based on identified student needs.

Feedback

The fourth and final step in Pollock's (2007) Big Four requires teachers to give precise, criterion-based feedback to individual students. In Goodlad's (1984) *A Place Called School*, schools were categorized into two groups, an assessment center, or an improvement center. Goodlad (1984) described an assessment center as a school where students receive traditional report cards with grades that report where on the normal range of grade distribution the student falls. On the other end of the spectrum, a school considered an improvement center provides students with assignments and progress reports that provide specific feedback that the student then uses to improve. As schools strive to become improvement centers instead of assessment centers, teachers must learn to provide students with feedback specific to well defined standards and then provide multiple modalities for students to apply or practice the thinking skills required to demonstrate mastery.

Feedback in schools has customarily equated to grades. Grades connect to a learning product such as a paper, project, quiz, test, worksheet, notes, or homework assignment. Teachers do mean for these learning products to demonstrate mastery of a learning target. What happens

however is a grade on any one of these learning products can represent learning from several different standards as well as work habits such as timeliness, accuracy, and neatness. Pollock (2007) described a need for teachers to unpack the data included in these grades to give students precise feedback on how they can improve.

When teachers grade activities, it's nearly impossible to unpack the resulting data to show where the student needs to make gains. However, when teachers score by deconstructing an activity score into different benchmarks in the grade book, patterns emerge and become useful for describing the learner's performance. (p.113)

Feedback from learning products should be specific, strategic, and prescriptive to help students improve. Feedback gives students something from which to work toward mastery while grades give students a final evaluation with no impetus for improvement.

Teachers who begin to provide deconstructed feedback soon discover conventional grading systems using percentages, points, or letter grades are limiting. Pollock (2007) recommended that teachers adapt a rubric type grading scale that indicates progress toward mastery. Evaluating students learning efforts using a scale such as advanced, proficient, developing, and minimal, that reports progress toward mastery of content learning benchmarks provides students and teachers with a meaningful scaffold for improvement.

Informal feedback, the floating step, in the teaching schema for master learners (Pollock, 2007) provides students with the opportunity for self-adjustment as learning occurs. This type of feedback occurs most often verbally and concurrently with learning. A continuous feedback loop throughout instruction provides teachers and students multiple opportunities for improvement before formal assessment occurs.

External forces such as accountability and high stakes testing are changing the way schools are looking at assessment and feedback. As the nation moves closer to the deadline imposed by *No Child Left Behind* when all children must perform on grade level in reading and math, states, districts, schools, and teachers search for better ways to prepare students. Due to these pressures, many schools and teachers already track at-risk student's progress using profiles that explicitly document proficiency on state standards. Pollock's (2007) pragmatic approach to providing feedback to improve student learning then is a simple extension of this prescriptive process for all students.

Pollock (2007) recognized that preparing students for life in the twenty first century requires a shift in focus from master teachers to master learners. Pollock's Big Four (curriculum, instruction, assessment, feedback) provide teachers with sound advice for accomplishing this change based on the research of many respected educators. Feedback, the keystone of the Big Four, traditionally lumped in with assessment has been elevated to a category of its own. The changes that Pollock (2007) proposed in the areas of standards based lesson-planning, instruction that requires students to think, and assessment closely tied to both standards and demonstration of thinking are based on familiar precepts that teachers will likely embrace. The fourth tenet of the Big Four, feedback, will require teachers to think of grading in a completely different way. Teachers utilizing Pollock's (2007) model for providing students with specific feedback will begin a process to ensure that students understand the performance expected of them and give them continual evidence as to how they can improve.

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