Learners Need Purposeful and Systematic Instruction
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Consider the following scenarios that often occur in secondary classrooms:

- A mathematics teacher solves a series of problems on the board and then assigns the odd-numbered problems at the end of the chapter for homework.
- An English teacher reviews the previous chapter in the novel, lectures on the theme, and then assigns everyone to silent reading for the remainder of the period.
- A science teacher assigns Chapter 14 in the textbook and tells everyone to answer the questions at the end of the chapter (full sentences, please).

Are you asking where exactly did the instruction occur? While most agree that teaching is more than simply causing or assigning an activity, the teachers in the examples above moved almost immediately to independent work. Did you notice that students were not given an opportunity to try new content while being supported? If this is common practice, is it any wonder that the needs of so many adolescent students are not being met?

Our experience suggests that teachers who are addressing the learning needs of all students employ a recursive instructional process that includes:

- Teacher modeling and guiding the acquisition of new content
- Time for students to collaborate as they refine their understanding of the new content
- Opportunities for students to try on the new content independently

In addition to thinking about the missing instruction in the first scenarios, also consider the prospect of the problem behaviors that could be anticipated because of the lack of student engagement. What is the likelihood that a student will write notes to a classmate in the math class, pull the hood of his sweatshirt up over his head in English, or visit the pencil sharpener countless times in science? These students are often the “canary in the coal mine”; the ones who are the first to react negatively to a learning environment with little support. Unfortunately, too often the student is blamed, without regard to the circumstances in which the problem behavior occurred. In these cases, it is fair to say that the absence of purposeful and systematic instruction contributed to student misbehavior.
Gradual Release of Responsibility

Pearson and Gallagher (1983) introduced a gradual release of responsibility model of instruction to describe a framework for effective instruction. This model depicts learning as a purposeful process that allows for a systematic shift in the cognitive load (responsibility) from the teacher to the student. In their model, explicit instruction is followed by guided practice in which the teacher and student have joint responsibility for using those skills or strategies. The learner takes the lead, with the teacher guiding her through the difficult spots and then stepping back as soon as the learner regains control. These first two steps are analogous to teaching someone to ride a bicycle. First, you show the learner all the parts and talk about the important things to remember, like pedaling and steering. You even get on the bike and show her how it’s done. That’s the modeled instruction phase of learning. But she’ll never learn to ride it if she doesn’t try it herself, so you invite her to get on the bike while you jog along, holding on to the back of the seat when she’s getting wobbly and letting go as soon as she has regained control. That’s the guided practice phase of learning. With lots of guided practice, she becomes sure of herself, you begin to fade your support, and soon you’re standing nearby while she’s riding independently. That’s the final phase of instruction— independent practice.

Adding Productive Group Work

Although Pearson and Gallagher developed this model to describe how teachers develop students’ reading comprehension, the framework works well across content areas. We would add an additional phase to this model: productive group work. We know that adolescents learn when they spend time interacting with their peers (Palincsar & Herrenkohl, 2002; Wentzel & Watkins, 2002). At some point, our novice bike rider begins to hone her skills in the company of other riders. They try new techniques together, make mistakes together, and generally come up with all kinds of things you would never teach her to do. (How did you first learn to pop a wheelie? Chances are, the responsible adult who taught you to ride did not also instruct you on the fine art of riding on the
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completed for homework, but most are done in class. The secret is that all activities need to be engaging and interesting.

A simple way to remember this instructional design is to think about where the cognitive load is situated:

- Modeling: “I do it.”
- Guided instruction: “We do it.”
- Collaborative learning: “You do it together.”
- Independent learning: “You do it alone.” (Fisher & Frey, 2008, p. 4)

Teaching Systematically and Purposefully

Teacher Mark Petersen (pseudonym) models the gradual release of responsibility in his Studio Arts class. His students are engaged in a unit of study on techniques for creating graphic novels. He knows these are popular among his students who have read visual narratives for years. Sometimes mistaken for comic books, graphic novels are self-contained narratives that utilize many of the principles of both prose text and visual arts. Once Mr. Petersen gains students’ attention and reviews the day’s agenda and the standards posted for this unit, as well as the questions they’ll answer later in class, he switches on the document camera and displays a page from Frank Miller’s classic graphic novel *Batman: The Dark Knight Returns*. “I know most of you have read this a thousand times,” he begins. The students nod in agreement. They know that this landmark graphic novel describes the events that brought Bruce Wayne out of retirement.

In addition, learners need time to work out the details with one another because this allows them to use academic and social language as they consolidate their understandings. For example, a chemistry teacher recently gave a brief lecture on acetylation, and her students followed her protocol to create acetylsalicylic acid in the science lab. But it wasn’t until they began drawing diagrams during the small-group discussions that students made the connection that they had formed aspirin by using acetic anhydride as an acetylating agent for salicylic acid. Without prompting, several of the students picked up molecular models to show others in the group where the acetyl groups were located. Others spontaneously looked up aspirin in their textbooks to confirm their thoughts. Their joint problem solving allowed them to arrive at deeper understandings they might not have achieved alone.

Once they have received modeled, guided, and collaborative experiences, students are ready for independent learning. Some of these independent tasks are
After modeling his instruction about these artistic techniques, Mr. Petersen divides the class in half. “I’m going to meet with each group separately and guide you through an analysis of these techniques in other graphic novels,” he explains. “While I’m doing guided instruction with one group, I’d like the other half of the class to take a look at the materials I’ve prepared for you. There’s a reading by Will Eisner on techniques for visual narratives. Please work in partners to read and discuss the questions I’ve posted on the board.”

Mr. Petersen spends about 10 minutes with each of the groups in guided instruction while the rest of the class engages in partner reading and talking about the questions. After finishing his guided instruction and quickly reviewing the questions answered by the partner groups, he moves the students into independent work. “We’re going into studio time now. You’ll have thirty minutes to create a storyboard of a vivid memory from your childhood, using at least two of the techniques we’ve examined today.” As his students settle in to work, Mr. Petersen meets with individual students. He’s confident of their success in this task because he knows he has constructed a carefully designed learning experience that is purposeful and systematic.

Disciplinary Literacy Is Purposeful and Systematic

Our experience teaching purposefully and systematically has allowed us to focus on disciplinary literacy. As Shanahan and Shanahan (2008) noted, we have to move beyond basic and intermediate literacy if adolescents are going to achieve at high levels. Unfortunately, these types of disciplinary thinking are rarely taught. As we have integrated the gradual release of responsibility into our teaching practices, we have realized that disciplinary literacy is within our reach.

References


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