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Dear Professor Canestrari:

I absolutely loved last night's class. I thought that Matt and Meredith did a great job with their inquiry demonstration lesson on child labor. I thought that they were really well prepared and they worked so effortlessly together. They knew what they wanted to accomplish, they asked us the right questions, they had great visuals by Lewis Hine and Jacob Riis, but above all, they really made us think. The lesson was really engaging. Your follow-up modeling with the puzzling Samoset, Kensington Stone, and Kwakiutl situations further reinforced my understanding about how we can promote inquiry in our classrooms. I think I'm getting a handle on getting kids to speculate. But my practicum cooperating teacher says that there are times when I have to be more explicit and when more instruction is necessary. What do you think? Have you any suggestions how about how I can approach this? I'm pretty sure how the inquiry lessons are going to go in my unit on commercial fishing in Rhode Island but what about more explicit lessons? I'm not quite sure about how to combine the two. Is there a way to combine them? Can we talk about this?

Carol Feinstein

❖   HOW WOULD YOU RESPOND?

Think about what makes teachers engaging. What skills do they possess? How do they communicate? What models of instruction might be useful to enhance teaching and learning? What are the component parts of a lesson? How do teachers sequence these components? How do effective

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teachers get student attention to begin a lesson? How do teachers model problem-solving behaviors? How can teachers assure that students will master new subject matter and essential skills? Keep these questions in mind as you read "Planning for Effective Instruction: Lesson Design" by Madeline Hunter and Doug Russell. What questions do you have about direct teaching? How can you help extend the discussion of these ideas in class? Finally, how would you respond to Carol Feinstein?

❖ PLANNING FOR EFFECTIVE INSTRUCTION: LESSON DESIGN

Madeline Hunter and Doug Russell

Skill in planning is acknowledged to be one of the most influential factors in successful teaching. Should there be a system to this planning or does one hope for a burst of inspiration from which effective instruction automatically will flow? While teacher educators are all for inspiration, we agree with Edison, that well-directed "planning perspiration" plus inspiration will work wonders in increasing learners' successful achievement. We believe that a systematic consideration of seven elements, which research has shown to be influential in learning and which therefore should be deliberately included or excluded in the plan for instruction, will make a great deal of difference in learners' success or lack of it.

It is assumed that before a teacher begins to plan for a particular day's teaching, the following decisions, which make effective instruction probable, will have been made:

1.   Within each general content or process area, the teacher will have determined the particular strand for immediate diagnosing and teaching. For example, in the general content area of reading, the teacher might diagnose and teach to either students responding to a piece of literature or identifying main theme or separating fact from opinion or increasing decoding skills. In a process area, the learning could be metacognition, brainstorming, or the generation of meaning in terms of a student's own experience; that is, what the student already knows.

2.   The teacher will have identified a major target objective in the strand and have diagnosed students' achievement in relation to that objective. For example, the teacher will identify students' ability to

respond to literature, determine which students can identify main theme, separate fact from opinion, or use beginning consonants to decode words. When a teacher determines which students need to learn a particular content, process, or appreciation, learning opportunities to accomplish that particular objective need to be planned.

3. On the basis of a diagnosis, the teacher will have selected the specific objective for the total group's or the subgroup's subsequent instruction. ("The learners will write their responses to the story, indicating the feelings it evoked" or "The learners will generate meaning in relation to self" or "The learners will select the main idea and underline it" or "The learners will place an F by each statement that is a fact and an O by each that is an opinion.")

Only after these three determinations (specific content, students' entry behaviors, target objectives) have been made is the teacher ready to *plan* for tomorrow's learning opportunity-regardless of whether the plan is implemented by direct input from the teacher, by materials, by computer, or by the students themselves in discovery or cooperative learning. Elements in a planning sequence are necessary for *every* mode of learning, not just direct instruction.

For each instructional session, the teacher must consider the following seven elements separately to determine whether or not each element is relevant for the particular content or process objective, for *these* students in *this* situation. Thus, a decision has to be made as to whether that element should be included, excluded, or combined with another element.

If the element is included, how to effectively sequence and integrate it in an artistic "flow" of instruction is the essence of the planning task. *Teats decision making is the basis of this approach to teaching.* "Decide, if design" is the foundation on which all successful instruction is built.

When designing lessons, the teacher needs to consider the element in a certain order since each element is derived from and has a relationship to previous elements. Also a decision must be made about inclusion or exclusion of each element in the final design. When the design *implemented* in teaching, the sequence of the elements included is determined by the professional judgment of the teacher.

1. What Instructional Input Is Needed?

All lesson design begins with articulation of an instructional objective specifies the perceivable student behavior that validates achievement the *precise content or process or skill* that is to be the learning outcome.

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To plan the instructional input needed to achieve the target objec-
tive, the teacher must determine what information (new or already
possessed) the student needs in order to accomplish the intended out-
come. Students should not be expected to achieve an objective without
having the opportunity to learn that which is essential in order for
them to succeed. Task analysis is the process by which the teacher iden-
tifies the component learnings or skills essential to the accomplishment
of an objective.

Once the necessary information, process, or skill has been identi-
fied, the teacher needs to select the means for "getting it in students'
heads." Will it be done by discovery, inquiry, teacher presentation,
book, film, record, filmstrip, field trip, diagram, picture, real objects,
demonstration? Will it be done individually, collaboratively, or in a
larger group? The possibilities are legion, and there is no one that is
always best.

Examples

- The teacher explains.
- A film is used to give information or demonstrate an activity.
- Students use library resources.
- Students discover the information by doing laboratory experi-
  ments or field observations.

In a lesson designed to increase fluency or to develop automaticity,
often no input is needed. The input has occurred in previous lessons.

2. What Type of Modeling Will Be Most Effective?

It is facilitating for students not only to know about, but to see or
hear, examples of an acceptable finished product (story, poem, model,
diagram, graph) or observe a person's actions or articulated decisions
in per-forming a task (how to identify the main idea, weave, determine
ways of thinking or making decisions while fulfilling the assignment).

It is important that the visual input of *modeling* be accompanied by
the verbal input of *labeling* the critical elements of what is happening
(or has happened) so that students are focused on essentials rather than
being distracted by transitory or nonrelevant factors in the process or
product.

Examples

- "I am going to use my thumb to work the clay in here like this so the tail has a firm foundation where it is joined to the body of the animal. In that way, it's less likely to break off in the kiln."
- "While I do this problem, I'll tell you what I'm thinking as I work."
- "Notice that this story has a provocative introductory paragraph that catches your interest by the first question the author asks."

In lessons designed to produce divergent thinking or creativity, the teacher usually should not model because students will tend to imitate. The modeling should have occurred in previous lessons so that students have acquired a repertoire of alternatives from which they synthesize an outcome satisfying to them.

3. How Will I Check for Understanding?

The teacher needs to know at what point students possess the information and/or skill necessary to achieve the instructional objective. The following are some ways of ascertaining this.

Sampling

Sampling means posing questions to the total group, allowing them time to think, and then calling on class members representative of strata of the group (most able, average, least able). This process focuses everyone on the generation of an answer and develops student readiness to hear an affirmation or challenge of his/her answer. Note that at the beginning of learning, correct answers are most enabling. Therefore, it is recommended that the teacher at first call on able students to avoid incorrect answers, which can "pollute" learning.

Examples

State the question or give the direction, then give thinking time before naming a student to respond:

- "Be ready to summarize the results of
- "What do you believe were the reasons that Washington was a great leader? I'll give you a minute to think."
- "How would you estimate the answer?"
- "What operation would you use and why?"

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Signaled Responses

Each member of the group makes a response, using a signal. For example, students show their selection of the first, second, third, or fourth alternative by showing that number of fingers, put a pencil straight up for "don't call on me for this question," make a "c" with a hand when examples are correct or an "i" when incorrect. Math operations, first letters of words, and punctuation all can be hand-signaled. Nodding or shaking of heads, use of counting sticks, and pointing to a place in the book or to parts in a diagram or to objects are samples of the many signals that can validate learning, or lack of it, for each member of the group.

Examples

- "Nod your head if you agree. Shake your head if you don't."
- "Signal whether you add, subtract, multiply, or divide, by making that sign with your fingers."
- "Show a "c" with your fingers if what I say is correct; and "i" if incorrect. Don't do anything if you're not sure."
- "Raise your hand when you are ready to answer this question."
- "On your microscope, point to _____."

Group Choral Response

After the teacher presents a question to the total group and gives thinking time, the strength of a choral response can indicate the general degree of student accuracy and comfort with the learning. However, this method usually does not give information about individuals.

Individual Private Response

A brief written or whispered-to-teacher response makes students account-able for demonstrating possession of, or progress toward, achievement of the needed information or skills.

Examples

- "Write the names of the three important categories we have discussed and one member of each."
- "Do the first part of this problem on your paper."
- "As I walk around, be ready to tell me your topic and the main idea of your paper."

4. How Will I Design Guided/Monitored Practice?

The beginning stages of learning are critical in the determination of future successful performance. Initial errors can "set" and be difficult to eradicate. Consequently, students' initial attempts in new learning should be carefully monitored and, when necessary, guided so they are accurate and successful. Teachers need to practice with the total group or circulate among students to make sure instruction has "taken" before "turning students loose" to practice independently (with no help available). With teacher guidance, the student needs to perform all (or enough) of the task so that clarification or remediation can occur immediately should it be needed. In that way, the teacher is assured that students will subsequently perform the task correctly without assistance rather than be practicing errors when working by themselves.

5. What Independent Practice Will Cement the Learning?

Once students can perform with a minimal amount of errors, difficulty, or confusion, they are ready to develop fluency, along with increased accuracy, by practicing without the supervision and guidance of the teacher. Only at that point can students be given an assignment to practice the new skill or process with little or no teacher direction.

Teachers, like doctors, are successful only when the student no longer needs them. All teaching has as its purpose to make the student as independent as possible. When lessons are carefully planned, student independence becomes much more probable. It is important that in independent work, the student does what already has been practiced rather than some new, related, or "inverted" endeavor.

An "inverted" assignment is one where a skill is taught and its reciprocal is practiced. It is as if you taught a child how to untie shoes and take them off and then assigned the practice of putting them on and tying them, or you taught addition and then assigned a practice sheet of subtraction. The same situation is created by teaching students to solve word problems and then asking them to generate word problems, teaching punctuation of written sentences and assigning creation of sentences requiring that punctuation, teaching how to recognize a topic sentence and then requiring generation of topic sentences.

6. Should the Students Be Aware of the Objective and Its Value?

This element of an effective lesson involves communicating to students what they will learn during the instruction and why that

accomplishment is important, useful, and relevant to their present and/or future life situations. It is not the pedantic, "At the end of today's lesson you will be able to _____."

Examples

- "You were slowed down yesterday because you had trouble with _____. Today we are going to practice in order that you develop more speed and accuracy."
- "We are going to work on the correct form of letter writing so that you can write for the materials you need in your social studies project."
- "Today you are going to practice ways of participating in a discussion so each of you gets turns and you also learn from other people's ideas."
- "You are going to be surprised to find out what happened after Columbus returned and the difference his voyage made to ways of thinking."

Note that the objective as *stated to the student* is not as it is stated in the teacher's plan book: "The learner will use correct form in writing a letter"; "The learner will list the results of Columbus voyage and explain their significance."

Usually, students will learn more efficiently if they know what the learning will be and why it is important in their lives. There are times, however, when the objective should not be known because it will distract them or turn them off. ("Today you are going to learn the difference between colons and semicolons" could elicit "Who cares?")

7. What Anticipatory Set Will Focus Students on the Objective?

"Anticipatory set" results from a brief activity that occurs at the beginning of the lesson or when students are mentally "shifting" gears from one activity to the next. The purpose of an anticipatory set is to elicit students' attending behavior, focus them on the content of the ensuing instruction, and develop a mental readiness (or "set") for it. The "set" may (but doesn't need to) include a review of previous learning if it *will help the student achieve today's objective,* but not routine review of old material. The set also may give the teacher some diagnostic data needed for teaching the current objective.

An anticipatory activity should continue only long enough to get students "ready, set to go," so that the major portion of instructional time is available for the accomplishment of the current objective.

Examples

Examples of activities that produce anticipatory set are having students

- Give synonyms for overused words, when the current objective is improvement in descriptive writing
- Create word problems to go with a numeral problem on the chalkboard, when the current objective is meaningful computation practice
- Review the main ideas of yesterday's lesson, which will be extended today
- State ways a skill might be useful in daily life, when the objective is to develop fluency with that skill
- Practice speedy answers to multiplication facts for a quick review before today's math lesson on two-place multiplication

An anticipatory set is *not* needed if students are already alert and "ready to go" because yesterday's teaching built a bridge or transition to today's lesson.

Summary

Not all the seven elements just described will be included in every lesson. It may take several lessons before students are ready for guided and/or independent practice. Also, *mere presence of an element in a lesson does not guarantee quality teaching.* A teacher may use an anticipatory set that spreads rather than focuses students' attention ("Think of your favorite food; today we are going to talk about cereals"). Input may be done ineffectively. The modeling may be distracting ("I will cut this chocolate cupcake in fourths"). The seven elements are guides in *planning* for creative and effective lessons. They are not mandates!

Simply "knowing" the seven elements of planning for effective instruction will not ensure that those elements are implemented effectively. *Also,* simply having a "knack with kids" will not ensure the elements that promote successful learning will be included in

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instructional planning. Both the science and the art of teaching are essential. It is the belief of the writer, however, that deliberate consideration of these seven elements, which can promote effective instruction, constitutes the launching pad for planning effective and artistic teaching (using any model of teaching with *any* type of student) to achieve greater student achievement of *any* objective or goal.