

# Using Student Characteristics as the Focal Point for Improving Instruction

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**Abstract.** This article describes an instructional improvement program currently underway at the University of Minnesota. The program's overall goal is to help faculty become aware of and adapt their instructional strategies to the developmental and learning characteristics of students. The first section provides an overview of the assumptions that underlie the program. The next section describes the roles of the faculty consultant and faculty member and discusses the process used in the faculty consultation model. Finally, a sample of discussion from one of the faculty seminars is used to highlight the process.

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College teachers are an anomaly within the professions. Unlike other professionals, college teachers typically have had little or no formal preparation for the very activity that will demand much of their professional time and energy—classroom teaching. In contrast, consider the preparation of other professional groups: Surgeons perform numerous operations in the course of their residency training; architects apprentice with experienced professionals before acquiring a license; public school teachers study the psychology of student learning, are introduced to a variety of teaching techniques, and have the opportunity to practice their craft in a classroom before obtaining their first teaching assignment.

But the college teacher, who may teach as many as four or five classes a semester, is usually unprepared to teach. Historically, knowledge of subject matter alone was considered the hallmark of good teaching in higher education. Consequently, most college teachers are well versed in their disciplines but have inadequate knowledge about the processes of teaching and learning. Nor is help readily available once one's teaching career is in progress. Few teachers have had their classes observed by anyone other than their own students. To make matters worse, most faculty members are reluctant to discuss their teaching concerns with colleagues. As Kozma, Belle, and Williams (1978) observe, "Until recently, there has been a conspiracy of silence about teaching and learning in academic culture" (p. 22).

Fortunately, teaching at the post-secondary level now appears to be coming "out of the closet." Efforts aimed at improving teaching in higher education have proliferated in the last decade (Gaff, 1975). At every institution, from the two-year community college to the large research university, monies are spent to support programs designed to improve the instructional climate. This article describes the theoretical orientation and summarizes the procedures used in a new model for teaching improvement currently being tested at the University of Minnesota. The staff of the Teaching Improvement Program assumes that if faculty members are to make meaningful changes in their instructional environments, they must begin by first coming to understand their current "theories" of teaching and learning. With the help of a consultant, teachers can then begin to enrich their theories and make corresponding adjustments in their teaching practices. The following paragraphs provide a rationale and description of this consultation model.

*Assumption 1: Teachers have personal theories of teaching that guide their behavior in the classroom.*

I use the term "personal theory" to refer to that configuration of intuitive assumptions, guiding principles, and stored perceptions or models that comprise a teacher's understanding of the teaching-learning process.

Although college faculty members typically have had no formal teacher training, most have a set of implicit beliefs about what constitutes effective teaching. Sources for these beliefs vary from teacher to teacher. Former teachers, regardless of their actual teaching competence, serve as models for a teaching ideal. Personal experience in the classroom is a powerful shaper of conceptions about teaching and learning. Other factors such as values, philosophical orientation, or personality attributes are likely to contribute to one's beliefs as well.

These individualistic belief systems are important because they appear to influence a teacher's behavior in the classroom. In a review of studies on teacher thinking, Clark and Yinger (1977) describe an ethnographic study by Janesick (1977) in which the researcher spent 7 months observing a sixth-grade teacher. On the basis of these observations, extensive field notes, and interviews with the teacher, Janesick concluded that the dominant characteristic of this teacher's orientation toward teaching was the importance of creating a stable, cohesive group in the classroom. Viewing himself as the group leader, the teacher modeled behaviors of cooperation and respect for group members and encouraged group activities. Other researchers have noted similar underlying constructs. Marland (1977) identified five such principles that seem to guide a teacher's behavior. One of the five, for example, is the principle of power sharing, which occurs when teachers use the informal peer power structure to help maintain better control of the activities of other students. These and other studies suggest that teachers, although they may be unaware of it, attempt to bring their teaching behaviors in line with their beliefs.

As well as being revealed by actual behavior in the classroom, personal theory is reflected in the way a teacher perceives his or her role. Axelrod (1973) describes four characteristic roles or

styles: content-centered, instruction-centered, intellect-centered, and person-centered. Adherents of each style view the goals of teaching differently, and their viewpoints affect the quality of their interactions with students. Teachers who are content-centered, for example, place stress on students learning the facts, concepts, and principles of the field. They feel successful when students master the content of their courses. Intellect-centered teachers are less concerned with content, encouraging students to acquire rational inquiry skills. Their focus is on the process of learning rather than its product. From the intellect-centered teacher's point of view, successful students are those who can reason logically and demonstrate problem-solving skills.

Hunt (1976), who uses the phrase "implicit theories of teaching," reasons that one way to begin to assess a teacher's orientation is to draw out his or her personal constructs about key elements in the teaching environment. He uses a modified version of Kelly's Role Construct Repertory Test (Hunt, 1977) to examine both the number and quality of teachers' constructs about students, teaching approaches, and teaching outcomes. For the "teaching approach" component, for example, 12 different dimensions are scored (e.g., content focus, student participation, teaching aids). One teacher's constructs might be representative of only one or two of these twelve dimensions but another's constructs could represent a greater range. Analyzing a teacher's constructs can provide greater clarity about his or her orientation toward teaching and learning.

*Implications for the Teaching Improvement Consultant.* Each teacher comes to the consulting relationship with his or her own personal theories. Regardless of how impoverished or enlightened, these theories are the starting point for the relationship. Hunt reasons that one vital role of the consultant is to encourage teachers to make their implicit beliefs explicit. In other words, by the dual processes of supporting and challenging, the consultant helps the teacher reflect on his or her assumptions about students, teaching strategies, the nature of the content, outcomes of instruction, and so on. Consider the teacher who says that he or she dislikes class discussion because it interferes

with "getting through all the content." What this teacher communicates is an assumption that simply exposing students to subject matter is more beneficial than having them actively respond during the teaching process. Once teachers become aware of their own assumptions, they usually see a need to make adjustments. From our example, the teacher who comes to recognize the limitations of viewing "covering all the material" as top priority may wish to try out strategies that encourage more student interaction. The consultant can play a central role in this process. Through questioning, observing teaching, and interviewing students the consultant helps teachers understand their assumptions and provides support as the teacher makes changes.

*Assumption 2: Teachers' personal theories are especially weak with respect to understanding important developmental and learning characteristics of their students.*

The college years represent an important time in our lives. Enormous intellectual, emotional, and attitudinal changes occur as the student begins to identify as an adult and as a professional. How college students think, feel, and behave has been the focus of a number of theories (Parker, 1978). Although no comprehensive theories of student development exist, models that focus on aspects such as the psychological, moral, and intellectual development of the college student have been proposed. As a result of such theorizing and research we now have a better understanding of the ways that students change as they progress through their 4 years.

Perry's (1968) work is especially relevant to faculty in higher education because it provides a description of the intellectual development of college students. Growing out of his observations of undergraduates, Perry proposed a nine-position continuum to describe how college students develop in terms of their views of the nature of knowledge, the meaning of truth and values, and their responsibilities in the world. These nine positions can be consolidated into four broad categories: dualism, multiplicity, relativism, and commitment.

Students in the dualism category have a highly simplistic view of knowledge.

Things are right or wrong, black or white. Dualists perceive that their task in college courses is to find the "right" answers, to "psych out" what the authority (i.e., professor) wants, and to regurgitate it. In the classroom, these students display faulty logic, resist offering personal opinions, and prefer tests that allow for reproduction rather than transformation of information.

Multiplicity is the next broad category. Students who are in the multiplicitic stages begin to question the assumption that absolute right answers exist. But, although recognizing that more than one truth is possible, they have difficulty adopting a point of view because they haven't learned to weigh evidence when making decisions. In class, such a student might assert that he or she can't possibly take a position on an issue because everyone has the right to an opinion and nobody is more right than anyone else. These students' opinions may also change frequently on an arbitrary basis.

With the next step, relativism, the student goes beyond accepting a plurality of points of view. He or she now perceives the importance of context as a frame of reference for interpreting knowledge. This student is able to engage in higher level behaviors of analysis, synthesis, and evaluation. Committed relativism, the fourth broad category, occurs when an individual chooses to act with the full appreciation of the relativistic nature of knowledge.

*Implications for teaching improvement consultants.* That students differ from one another in many ways is an observation shared by teachers from nursery school through graduate training. Looking at student differences in a systematic way, however, requires that we focus attention on those differences that might reasonably interact with the instructional process. For college teachers, student development theories offer promise for providing a framework for understanding familiar but often puzzling behaviors.

When faculty members begin to view students from a developmental perspective, they naturally become curious about ways to accommodate different kinds of students in their teaching. Put simply, how can teachers match the teaching environment with the needs of individual students? Hunt argues that teachers must worry about two kinds of matches—contemporaneous and de-

velopmental. From a contemporaneous or short-term perspective, the teacher must accommodate the student's current level of understanding or developmental stage. The dualistic student who has a high need to believe in authority figures needs to encounter caring teachers who are patient with the need for absolute answers. From a developmental perspective, the teacher needs to arrange conditions to help dualistic students move to a more advanced view of knowledge. To do so, the teaching environment must be one that gradually begins to challenge an overly simplistic view of the world.

The consultant contributes in several ways to the accommodation of teaching environments to students. First of all, faculty members usually have inadequate knowledge about students' developmental and learning characteristics. The consultant, by combining direct instruction with readings and discussion, introduces teachers to the literature in this area. The consultant also helps them assess their own students. Together the consultant and teacher might examine student responses on tests or assignments, discuss observations from class, or administer instruments designed to assess the characteristics of interest. Finally, when the teacher and consultant have agreed upon an adaptive strategy, the consultant can collect data that assess its effectiveness.

#### **Formats for Consultation**

This teaching improvement model uses three formats for consultation: individual consultation, classroom observation with follow-up feedback, and the group seminar. Although faculty members sometimes choose to be involved in only one or two formats, the staff encourages participation in all three because each format makes a unique contribution to the process.

Through individual consultation the consultant and teacher begin to build a relationship involving trust and mutual respect. The relationship can be thought of as coordinate status consultation (Parker & Lawson, 1978), meaning that both participants recognize the expertise of the other and join together to pursue some common goals. In other words, the relationship is one of equal status where neither participant is superordinate to the other.

Individual consultation usually begins with an initial interview; the con-

sultant might ask the teacher some general questions about the kinds of classes taught, number of students, and so on. As the interview continues, the consultant may ask the teacher to describe the types of students he or she enjoys working with, what teaching methods he or she uses, and what student learning outcomes are valued. The consultant also will encourage the teacher to discuss general teaching concerns or specific problems he or she would like to explore. The culmination of this initial stage (which may involve two or more separate sessions) is an informal contract between the two, specifying initial problem areas to be addressed and perhaps the strategies to be used. During these conversations, the teacher has an opportunity to query the consultant about his or her role and possible contributions.

Over time, of course, each relationship between teacher and consultant takes on its own unique identity. One teacher may openly solicit suggestions, and another may accept only indirect hints. The consultant must remain flexible and adapt his or her approach to the needs of each teacher.

Classroom observation and follow-up feedback is an invaluable format of the teaching improvement consultation process because it gives the consultant an opportunity to see the teacher's actual interactions with students, choices of teaching strategies, and so on. Typically, consultants attend class and record their observations in notes. The goals of observations vary. Sometimes teachers want information about specific behaviors. Are their lectures well organized? Do they accept student ideas? Are students taking notes or reading the assignment for another class? At other times, the consultant may be checking out hypotheses (e.g., "The teacher expresses impatience when we discuss students of lower ability. Is this reflected in his or her treatment of such students in class?") In other cases, the consultant looks for salient behaviors on the part of both teachers and students that indicate problem areas. He or she might note, for example, that the instructor appears to address most questions to only a few students or that some students seem unwilling to give their own opinions on a topic. Being unfamiliar with specific content, consultants may "play" student in order to assess the clarity of the instructor's presentation. If they become

confused, need more examples, or can't keep up, students are likely to be experiencing similar difficulties.

Once an observational session is complete, teacher and consultant meet to review the findings. If specific areas of concern were delineated, the two review data relevant to these concerns. If the consultant has other perceptions or information to share, she or he must make a judgment about their appropriateness and usefulness. Raising too many issues too quickly may overwhelm the teacher and lessen enthusiasm for future observation.

The seminar is the third format for consultation in the program. Meeting on a weekly basis, the seminar brings together the consultant and a small group of faculty members. A session might begin with the consultant posing a hypothetical problem involving some type of teaching concern. This problem then serves as the basis for a discussion in which teachers share possible solutions and relate their own experiences in handling similar problems. Faculty members may also come to the seminar seeking input from others about actual teaching issues.

The group seminar offers certain advantages as a consultation format. First, it is an effective forum for the presentation and exchange of information and ideas. For example, the consultant may present material about student development theory. Second, the seminar encourages group problem solving. When confronted with a teaching problem, the resources of the group outweigh those that can be provided by any one individual. Third, the seminar offers the consultant an opportunity to model good teaching techniques such as question asking or leading a small group discussion. Fourth, the seminar constitutes a teaching support system for its participants. Recognizing that others struggle with similar concerns lessens the anxiety accompanying change.

#### An Example: The Faculty Seminar

Writers who choose to describe instructional improvement models through articles in journals share a common problem; that is, how to transmit the flavor of the interactions between the clients and change agents within a relatively limited amount of space. Lists of steps or pictures of boxes and arrows rarely capture the nature of transactions

FIGURE 1. Excerpt from a discussion in a typical faculty seminar.

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<b>Setting:</b>	Six faculty members and a consultant are seated around a large conference table. It is the second meeting of the group. The consultant has distributed a handout.
<b>Consultant:</b>	The handout I've given you describes a teaching problem encountered by a political science teacher. Take a few minutes to read it over. When you've finished, list some possible explanations for the differences between the two sections of the course.
	Tom Wilson is concerned about one section of his introductory political science course, which is now in its fourth week of the semester. Although he is using the same syllabus and text in both sections, he perceives Section 1 to be less effective than Section 2. "Students in Section 1 act disinterested and unmotivated," Wilson complains. "I try to encourage class discussion by asking provocative questions but most of the students stare at the floor or give me confused looks." Wilson enthusiastically states that class discussions from Section 2 are so lively that some students even stay past the end of class. A number of Section 2 students challenge Wilson's interpretation of political events. Not infrequently, they offer alternative interpretations. Wilson also notes that Section 1 students do poorly on homework assignments that require analysis or synthesis of what they've read and heard in class. Typically, students simply paraphrase the text or parts of the lecture.
<b>Consultant:</b>	Who would like to begin?
<b>Faculty 1:</b>	Frankly, I think the best explanation is a simple one. . . the class is a ringer! Every now and then, we all have one . . .when it happens, I always wonder why I stay in teaching! (Laughter—heads nod.)
<b>Faculty 2:</b>	I agree, John! Sometimes I have a class that just doesn't work. I could give the best lectures, show the best films, everything short of dancing on the tables but nothing helps!
<b>Faculty 3:</b>	I think Wilson has a group of low ability students. They simply aren't capable of performing up to his expectations. I'm sure he finds this section a boring one to teach!
<b>Consultant:</b>	Some of you have formed opinions about the kinds of students Wilson likes to teach and those he dislikes.
<b>Faculty 3:</b>	Absolutely. I think Wilson really dislikes the "wishy washy" dependent ones. . .he wants students to think for themselves.
<b>Faculty 6:</b>	I think he likes students who are able to think like he does!
<b>Faculty 1:</b>	I see it more in terms of ability. Wilson likes to work with bright kids and dislikes those who aren't!
<b>Consultant:</b>	I'd like to suggest another way to think about students Wilson likes and dislikes teaching. Let's return to the student development theory we discussed briefly last week. Does Perry's work suggest an alternative framework for thinking about students from these two sections?
<b>Faculty 1:</b>	Well, it is possible that many of the students in this year's class are at the lower end of the developmental continuum . . .forgotten the correct label.

- Faculty 3:** Dualists.
- Consultant:** Why do you think this might be the case?
- Faculty 1:** Section 1 students seem uneasy about making judgments. They don't have much confidence in their opinions.
- Faculty 3:** Yes, and they behave as if they think the instructor's word is truth. The description says they never challenge him.
- Consultant:** Using a developmental framework, how might you characterize students from Section 2, who Wilson finds easy to work with?
- Faculty 2:** They are more advanced. . .they are willing to disagree with the authority figure. . .they believe they have a right to their own opinions and interpretations of events. These students also seem capable of judging their own ideas.
- Faculty 1:** They appear to be capable of building arguments based on evidence. The students Wilson finds difficult to teach can memorize information but don't seem to internalize it or act upon it.
- Consultant:** If Wilson accepts this developmental framework as reasonable, might it have implications for what he does in the classroom?
- Faculty 3:** Speaking from my own experience, thinking about students developmentally might give me more options. Perhaps I wouldn't feel "stuck" with a class of slow students.
- Consultant:** Say more about those options.
- Faculty 3:** Let's see. . .well, for example, if I judge that many of my students are dualists, I might put them in a situation where they must argue a different side of an issue from me.
- Consultant:** How would you do this?
- Faculty 3:** Suppose that rather than lecturing, I formed a debate; one half of the class would be instructed to argue the pros of some issue and the other half argue against it.
- Consultant:** Would you let your own views be known?
- Faculty 3:** No, I would insist that they formulate their own ideas.
- Faculty 2:** That method might work in your content area but I'm not sure how to carry it off in my introductory nutrition course.
- Consultant:** Mary, perhaps before we try to respond, you could tell us more about what you hope to accomplish in that course.

that occur as teachers and consultants work together.

The accompanying excerpt from a discussion in a typical faculty seminar is included to suggest the tone of the Teaching Improvement Consultation Model (See Figure 1). It is based on a case study provided by one of the program's consultants (Becker, Note 1).

### Summary

Through individual consultation, classroom observation, and seminars teachers are encouraged to examine their assumptions about students, teaching approaches, and content. Interviews with faculty members indicate they have enriched perspectives about teaching and learning. Many cite specific

changes they have made to accommodate students at different developmental levels.

### Reference Note

1. Becker, C. *Teaching improvement consultation project*. End-of-the-quarter progress report, Winter 1980, pp. 9-11.

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