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Conducting Discussions in the Diverse Classroom

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In this article the authors focus on conducting discussions in diverse classrooms. They begin by examining three cognitive frameworks that can help instructors appreciate the diversity of learning styles among students. They then review specific strategies that can be used not only to make classroom discussions more inclusive but also to foster diversity through discussions.

Two discoveries that a university instructor can make about the students in her/his classroom can have a profound effect on the quality of instruction. The first occurs with the realization that the sea of faces before her/him is not a monolithic block of identical thinkers, but is rather a group of unique individuals with a variety of abilities and needs. The second discovery is that lumping students into broad categories—jocks, African Americans, Asians, gays, non-traditional students, etc.—can be unproductive. By recognizing that students are intellectually, socially, and emotionally different, an instructor has begun to celebrate the diversity that exists among students.

Once diversity is acknowledged, it can be enhanced and used to advantage in all teaching but especially in classrooms where discussion is a primary method for achieving course goals. Gullette (1992) reminds us that class discussion offers students a taste of the pleasures of intellectual conversations and prepares them to be responsible members of a diverse society. Yet the process of conducting discussions in ways that are inclusive presents special challenges for the instructor. Meeting those challenges requires an under-

standing of the diversity that exists and specific strategies for working with it. In this article we examine various frameworks and strategies relevant to conducting discussions in diverse classrooms. We begin by examining three cognitive frameworks that have implications for class discussion and then turn to the works of Flick (1992), Collett (1990), and Billingsley (1991) for practical strategies.

Cognitive Frameworks

During the last few years, cognitive frameworks have been useful for helping teachers understand more fully the kinds of diversity that can be present in the classroom. Three frameworks that we have found to be particularly useful are Felder and Silverman's (1988) classification of learning styles, Perry's (1970; 1985) stages of cognitive development, and the work of Belenky and her colleagues (1986) on women's ways of knowing.

Felder and Silverman—Learning Styles

Differences in learning styles represent an important component of student diversity, for, as Claxton and Murrell (1987) suggest, "Information about style can help faculty become more sensitive to the differences students bring to the classroom" (p. iii). A variety of constructs to describe cognitive, affective, and physiological orientations of college students have been described by theorists (Grasha, 1990; Gregorc, 1979; Kolb, 1981; Myers, 1962; Witkin, 1976). We have found, however, that a less-well-known system developed by Felder and Silverman (1988) is particularly applicable to discussion learning. Their schema identifies five poles of learning style characteristics:

sensing learners	vs.	intuitive learners
visual learners	vs.	auditory learners
inductive learners	vs.	deductive learners
active learners	vs.	reflective learners
global learners	vs.	sequential learners

Learning styles printed in boldface are in the minority in the student body as a whole, are the opposite style of that of the majority of instructors, or are not sufficiently addressed by traditional teaching styles. In fact, as Felder and Silverman (1988) point out, teaching has traditionally favored learning that is intuitive, auditory, deductive, relative and sequential.

A gross mismatch between teaching techniques and learning techniques may well affect student learning. Students complain that they "don't get it,"

the instructor goes on the defensive, and classroom tension can rise to uncomfortable levels. In the end, students who feel that they do not fit in—especially the visual, the sensory, and the global learners—are likely to feel that they are inadequate or that something is wrong with them.

One reaction to this problem might be to give all students a common learning style inventory, such as the Myers-Briggs Type Indicator (1962), to determine their learning styles and then to limit class registration to students sharing a particular learning style. This hypothetical solution, however, would not only be impractical but would also negate the advantages of diversity. Through use of Felder and Silverman's (1988) framework, instructors can begin to respond to the diversity of learners and develop a multi-dimensional repertoire of teaching techniques.

Courses with a certain amount of built-in redundancy will reflect a switch in emphasis from coverage of material to coverage of the various learning styles. *Sensing learners* will appreciate discussions involving concrete information as a complement to the theoretical foundations of the course. *Visual learners* will benefit when charts, videos, demonstrations, and transparencies are used as springboards for discussion. In order to reach *inductive learners,* discussions can begin at the level of observable phenomena before proceeding to the derivation of general rules. Some form of the Socratic method might suit this way of learning. *Active learners* can be assisted by being involved in group problem solving activities during class. *Global learners* can profit when reminded of the "big picture"—the encompassing framework for the day's material—and ways that the details of the discussion are related to it and to each other.

Felder and Silverman (1988) further suggest that instructors can motivate learning by trying to:

- establish the relevance of discussion topics to the real world and to the students' personal experiences;
- provide a balance between concrete data and abstract concepts, and between problem-solving and reflection;
- give students "wait time" for absorption of new material;
- encourage innovative thinking and creative solutions, even wrong ones;
- talk to students about different learning processes.

Perry and Cognitive Development

Perry (1970, 1985) has provided a detailed model of how the intellectual capacities of students evolve during their college years. According to Perry, students typically pass through different stages (Perry prefers to call them "positions") of development as their attitudes toward knowledge and author-

ity evolve. Although Perry originally identified nine stages of development, those nine positions can be reviewed in four major stages.

In Perry's first major stage, *dualism*, a student focuses on black and white interpretations of reality. The learner, engaged in a search for a fixed, universal truth, often sits passively in the classroom and acts as a receptor of facts. For a student at this stage, class discussions can be initially disturbing. In fact, an entire semester might pass with this student looking perplexed and sitting silently through discussion after discussion. Although this student may approach the discussion leader at the end of the class and acknowledge that the discussion was interesting, she/he is still likely to request the correct answer. When they are less polite, such students say that they regard discussion as a waste of time and that teachers are not doing their jobs if they do not provide answers. Because discussions ultimately can be rewarding for learners who begin to recognize and tolerate diverse opinions, instructors need to encourage students at dualistic stages to be patient in looking for answers.

In time, students then move into the second of Perry's major stages, *multiplicity*, where diversity of values is tolerated when the "right answers" are not yet known. Students begin to realize that in some areas of knowledge, multiple points of view are unlikely to resolve themselves into a unified idea of truth. Kurfiss (1988) calls this recognition of multiplicity a "crucial turning point in the development of critical thinking" (p. 55). A student at this stage may irritatingly insist that his/her view is as valid as that of anyone else—including the instructor. Tactful guidance will lead such claimants toward a relativity that acknowledges the worth of conflicting views. With the student beginning to compare and contrast ideas, the discussion leader should gently point out strengths and weaknesses of the contrasting viewpoints.

Perry's third stage, *relativism*, represents the conventional model of a discussion participant. Students at this level realize that the best opinion is that with the strongest line of reasoning to support it. Thus, in discussions they attempt to build up consistent reasoning structures while trying to demonstrate weaknesses in arguments with which they disagree. These contextual relativists realize that ideas need to be judged differently according to the contexts in which they occur. The discussion leader can assist their move towards independent thought by demonstrating how to analyze and construct a sound argument.

With careful nurturing and good luck, learners will reach the fourth stage—*commitment in relativism.* The committed student focuses on the choice of a career and a set of values, coupled with an attempt to reach equilibrium in his or her internal personal conflict of ideas. The emphasis

here is on how to judge positions. Knowledge comes to be viewed as having a context that leads us toward qualitative judgments. Students at this level can be valuable participants in free-flowing, impartial discussions of issues and ideas.

Because it is common to have several levels of development present in a class at the same time, matching the instructional process to the students' capacities can be extremely difficult. Explorations of some topics may be well over the head of less-developed students; yet if the instructor adjusts expectations to fulfill the needs of these students, more highly developed members of the class may be bored. Discussion leaders can help students to recognize and develop their intellectual capacities by attempting to:

- encourage lower-level thinkers in their attempts to grow and adapt;
- be supportive by providing a clear context when introducing and explaining topics;
- provide clear written guidelines and directions for small group work;
- sequence presentation of material so that increasingly complex issues are discussed;
- reinforce the belief that alternative views are legitimate;
- encourage students to develop and express their own viewpoints, especially by fostering risk-taking and classroom interaction;
- ask open-ended questions;
- demonstrate how to critique a theory or hypothesis;
- urge students to explain their ideas and analyses;
- focus explicitly on the nature of knowledge in the discipline.

Instructors can also assist students by sequencing the learning tasks assigned during the semester. Students at the initial levels of development, for example, can begin with discussions based largely on fact. As the weeks pass, instructors can increase the numbers of questions and tasks that require higher cognitive levels, thus mirroring and aiding the growth of sophistication among the students. In the excitement of pursuing intellectual topics with the more advanced learner, however, faculty should take care not to leave behind those who remain on a more basic level. Occasional redundancies in the learning tasks can ensure that all learners come away from discussions with some intellectual fruit. Although instructors cannot expect a noticeable change in every student during a single semester-long course, they can welcome change when it does occur and call it to the student's attention.

Belenky et al. and Women's Ways of Knowing

The work of Belenky, Clinchy, Goldberger, and Tarule (1986) supplements and adjusts Perry's study of cognitive development. Belenky and her colleagues argue that their study was necessary because Perry's (1970) groundbreaking study at Harvard was too focused on men's narratives and men's patterns "to uncover those themes that might be more prominent among women" (p. 9).

Belenky and her colleagues (1986) observed that the women they interviewed tended to treat learning and knowing as oriented to their own lives and experiences in a stronger way than the men that Perry interviewed. They then traced a pattern of cognitive development in women students. At their stage of *received knowledge* (similar to Perry's dualism) students rely on authorities for the truth, believing that there is always a right answer and an external truth outside themselves. At the *subjective knowledge* stage (analogous to Perry's multiplicity) students regard truth as being personal and internal and deriving from their own experience, which they carry with them in the form of intuition. These students tend to make judgments in terms of feelings. As with Perry's relativism, *procedural knowledge* is a level at which students associate truth with established methods of inquiry, but many women develop a style that seeks personal contextual clues to achieve understanding. *Construc ed knowledge* (similar to Perry's commitment in relativism) is the integrative position of contextual knowing that we hope all of our students can attain. Belenky and her colleagues (1986) identify this stage as the one when women realize that "All knowledge is constructed, and the knower is an intimate part of the known" (p. 137).

Belenky et al. (1986) depart from Perry's model in describing the third stage (relativism/procedural knowledge) where they make the radical distinction between separate and connected knowing. They designate the man's approach to knowledge as *separate knowing,* the epistemology that has prevailed on American campuses throughout this century. This approach tends to be adversarial, viewing argumentation as the primary discourse mode. Separate knowing thrives whenever discussion is based on disagreement, with participants playing "the doubting game" and aiming to be "dispassionate, unbiased observers." Belenky et al. term the typical woman's approach *connected knowing*—a thought process long considered by academicians to be unproductive. Learners in this mode tend to suspend disbelief in an effort to understand other points of view. Students see themselves as part of a group of connected knowers, not isolated entities, and as "playing the believing game." Emotion, rather than being suppressed, is joined with reason. These voices utter personal narratives rather than arguments.

Although Clinchy (1990), in a more recent discussion of these issues, does not consider the disparate epistemic model—separate and connected knowing—to be gender-exclusive, she does conclude that women are predominantly connected knowers. Women, she suggests, tend to be less argumentative and less forceful in holding to one viewpoint, do not seek a standard truth, are able to sympathize with conflicting views, and are less detached and more involved in their approach to knowing.

The separate knower, speaking in the male, patriarchal voice, tends to be suspicious and disrespectful of this connected, female voice. It is during periods of classroom interaction that the diffidence of the connected knowers can work to their disadvantage. If instructors encourage students to attack theories, attack authors, and attack each other, only the isolated, separate knowers are being satisfied. The silence of so many women students in confrontational classrooms comes as no surprise. In addition, this research explains the alienation felt by other marginalized groups—African Americans, Native Americans, Hispanics—who do not partake of a tradition that seeks truth through conflict and classroom skirmishing (Anderson & Adams, 1992). Connected knowers are thus reluctant to speak in classroom discussions, not because any overt sexism or racism is being practiced but because the atmosphere of challenge and objectivity carries a negative charge for them.

On the other hand, when credence and acceptance are extended to both kinds of knowing, more voices can be heard, thus broadening the educational experience of the group as a whole. To achieve this expansion of voices, faculty can adjust their concept of class discussion from one in which participants take the floor to present and defend their opinions to one in which collaboration and group achievement are valued. Similarly, by encouraging students to view knowledge not as a body of objective facts but as a group event in which all individuals participate as knowers, faculty can help their students become constructed knowers.

A number of researchers have identified ways to address potential differences in students' ways of knowing. Krupnick (1985), for instance, after analyzing teacher-student interaction at length through videotapes of classes, concluded that male students typically speak more often in class than female students and that this tendency increases when the instructor is a male. Confirming the conclusions of Belenky and associates (1986), Krupnick observes that men talk in longer more organized speeches while women cluster their contributions to discussions in overlapping supportive bursts with frequent interruptions by other women. Krupnick suggests that to work

towards equal gender representation in classroom discussions, the instructor can:

- ask men and women students the same kinds of questions without reserving abstract, factual, or difficult questions for one gender;
- sequence participants' responses, so that neither gender has a monopoly;
- protect speakers from interruptions;
- intervene when rapid-fire comments prevent students from completing their contributions.

These and similar strategies, Krupnick believes, can "prevent inadvertent discrimination against women" by giving every student a fair chance to speak (p. 25).

Maher and Tetreault (1992) distinguish between discussions based on male techniques of investigation (teacher asks questions) and those based on female techniques (students ask questions). As a result of their analysis of gender differences in discussion contexts, they conclude that the male pattern of equating domination and univocality with mastery of material reflects the limitation of vision associated with Perry's dualism or Belenky's received knowledge. Discussion leaders can challenge themselves and their students to carry the quest for knowledge forward by relinquishing authority and reasserting it only when necessary to clarify sticky points, suggest alternatives, or assist students.

Additional Strategies for Facilitating Discussion in the Diverse Classroom

Although knowledge of the previously-discussed frameworks is useful for helping instructors begin to address diversity in cognitive development, there is a need for additional specific strategies to assist instructors in working with the diversity in their classrooms, particularly cultural diversity. When issues related to cognitive development and gender differences in ways of knowing are combined with issues of culturally diverse classrooms, instructors need a broad repertoire of instructional strategies for conducting discussions. Collett (1990), in his article on the culturally diverse classroom, suggests that "There is a growing body of research on culture based learning styles and the academic problems of underrepresented students. But, as usual, there is much less that is practical and helpful in the way of suggestions for changing teaching and learning" (p. 182). Based on the work of Flick (1992), Collett (1990), and Billingsley (1991), the next section of this article, then,

identifies specific strategies for facilitating discussion in the diverse classroom.

Flick—Inclusive Teaching

Flick (1992) provides a number of insights that assist instructors in being inclusive during discussions. For instance, faculty can consciously practice fairness by presenting various sides of controversial issues as impartially as possible without offending any individual or group. Students can develop sensitivity toward controversial issues, according to Flick, by investigating the origins and factual basis of stereotypes involving cultural, racial, or gender issues that arise during a discussion. During the process, the careful instructor will avoid tokenism by ensuring that the introduction of diverse perspectives or the names of scholars is natural and not artificial to the context. Flick advises instructors not to ask specific students for the "African-American point of view" or the "woman's point of view," because such questions inappropriately imply that all members of ethnic and gender groups share a single perspective. Flick (1992) also suggests that instructors, as role models for the students, should share their own processes "of developing awareness of gender, class, sexual orientation, and race/ethnic stereotypes and issues" (p. 5). In this way, students can begin to recognize how their own values develop and be encouraged to value diversity in their academic and post-college lives.

Collett—Teaching in the Culturally Diverse Classroom

Collett (1990) has published some thoughtful advice for instructors in culturally-diverse classrooms. Although much of this advice applies to teaching in general, it is especially applicable to conducting discussions. In his efforts to provide specific strategies, Collett suggests that instructors:

- be aware that no matter how liberated we may feel, our learning style will still be culture bound. We should "avoid the quite natural tendency to reward students who act and think as we do" (p. 182).
- tolerate "disorder" and emotion in the classroom. Get students more involved in the classroom by shifting responsibility for learning from teacher to students while keeping clear objectives in view.
- have high expectations for every student, recognizing his/her ability to learn and offer new meanings to fellow students and the instructor.
- intervene in a friendly way with students who are having difficulty. Invite them to office hours, speak to them before and after class, have lunch with them. The goal here is not friendship but encouragement.

- early in the course, hold a class discussion concerning how learning in your discipline is affected by a multicultural point of view.
- in a class of students representing a wide mix of backgrounds, pause during the semester for what Collett refers to as "pressure release sessions." Students can air their opinions of the teacher and teaching methods, and differences among the students can be brought to the surface.

Billingsley—Fostering Diversity Through Discussion

In addition to the specific strategies already mentioned for inclusive teaching in the diverse classroom, Billingsley (1991) provides ideas for fostering diversity through discussion. Billingsley writes persuasively on the ways that discussion can increase student awareness by overcoming obstacles to the free interchange of ideas, including lack of knowledge about the diversity of experience in America, unrealized prejudices, and feelings of guilt, anger, frustration, and anxiety that are aroused when diversity issues are discussed. He then provides strategies for increasing awareness of diversity through discussions. Billingsley's specific strategies are paraphrased in the paragraphs that follow:

1. It is essential to promote an environment in which students can comfortably engage in reasoned and fair discussion so that all students will feel empowered. The signal that will be sent out is that students are "equal agents who all have something significant to contribute to a common enterprise" (p. 1). In this environment meaningful human exchange can occur despite the confusion and fear that might prevail outside the classroom. All class members can thus experience "a common ground of mutual experiences and respect that can bind students together and simultaneously make it easier to understand and celebrate many differences" (pp. 1-2).
2. Instructors, too, need to feel comfortable handling the discussion of issues that may expose emotional sores and fears. In addition to establishing a content of diversity, they will have to develop a process of handling discussions that demonstrates the value of diversity because students observe and learn from behaviors of teachers as much as from their rhetoric. By modeling impartial reasoning, instructors can encourage the development of critical thinking skills among students, especially the ability to appreciate sophisticated multiple perspectives on complex intellectual and moral issues.
3. An environment of trust and mutual respect can be created through activities that allow students to become acquainted. For example, a first

day of class activity can have them ask each other's first and last names and majors.

4. A productive strategy is to celebrate everyone and to denigrate no one. Individual students should not be held responsible for the ethnocentric behavior of a group; therefore, all students will retain the right to choose the groups and issues they identify with or disregard. Should students choose to speak as members of a group, their remarks become a resource that can be utilized and incorporated into the classroom dialogue.
5. Instructors can universalize the ethnic or gender experience whenever possible so that students can identify with those that they might have previously seen as "other." In the context of their disciplines, instructors may want to illustrate how people of diverse identities share many common problems, issues and solutions. In Billingsley's (1991) words, "Students need to experience the marvelous paradox of human diversity, that we are all the same in different ways" (p. 3).
6. The class can examine how prejudicial behavior has opposed the expression of diversity in the past by creating negative stereotypes. Students can investigate the psychological, economic, and political reasons for the undermining of diversity in various societies. Instances showing the destructiveness of stereotyping can be drawn from the immediate environment as long as they are not embarrassing to participants in the class.
7. Instructors can use discussion to indicate to students the arbitrary nature of cultural and intellectual agendas. Through discussion, students will discover that individual behaviors or achievements are judged only by conventions that various cultural groups have established.
8. Where appropriate, instructors can give examples from their disciplines to show how various cultural, racial, or gender groups have contributed to western history and civilization. In small groups students can discuss problems of universal significance exploring their life experiences in the search for commonalities.
9. If a sharp difference of opinion arises between two students, one of them can be asked to explain her/his individual position. The other can then explain in his/her own words what the first student has said. When the first speaker is satisfied that she/he has been understood accurately, the two can reverse roles. In this way accuracy of communication and mutual respect can be encouraged.
10. If students become truly abusive in an argument, the instructor can intercede, taking the place of the student that is being attacked and answering for him/her until tempers cool and the two adversaries can face one another in a calmer manner.

11. Finally, instructors can invite and attract students to their classes who represent diversity by notifying their college's counseling and advising staffs that they are interested in diversity issues. Participation of students from diverse backgrounds will provide a wider range of input than is available from a homogeneous group.

Conclusion

It is important for all instructors to understand and appreciate the diversity that exists among students. When instructors choose class discussion as a primary method for achieving course goals, it is particularly crucial that they have ways of thinking about that diversity and strategies to address it. Although the cognitive frameworks discussed in this article do not explain all the diversity that might exist in a classroom, they do provide some insights that can help instructors understand that the male Eurocentric cultural style cannot prevail if class discussions are to be successful. When instructors combine such understanding with specific strategies for inclusive teaching, they can be much better prepared to conduct discussions that not only respect diversity but also foster its development.

References

Anderson, J. A., & Adams, M. (1992). Acknowledging the learning styles of diverse student populations: Implications for instructional design. In L. Border & N. Chism, (Eds.), *Teaching for Diversity* (pp. 19-33). *New Directions for Teaching and Learning, No. 49.* San Francisco: Jossey-Bass.

Belenky, M. F., Clinchy, B. M., Goldberger, N. R., & Tarule, J. M. (1986). *Women's ways of knowing.* New York: Basic Books.

Billingsley, R. G. (1991). Fostering diversity in the classroom: Teaching by discussion. *On Diversity in Teaching and Learning Series, No. I.* Boulder, CO: Faculty Teaching Excellence Program and the President's Fund for the Retention of Minorities and Women.

Claxton, C. S., & Murrell, P. H. (1987). *Learning styles: Implications for improving education practices.* ASHE-ERIC Higher Education Report No. 4. Washington, DC: Association for the Study of Higher Education.

Clinchy, B. M. (1990). Issues of gender in teaching and learning. *Journal on Excellence in College Teaching, 1,* 52-67.

Collett, J. (1990). Reaching African-American students in the classroom. *To Improve the Academy, 9,* 177-188.

Felder, R. M., & Silverman, L. K. (1988). Learning and teaching styles in engineering education. *Engineering Education, 78,* 674-681.

Flick, D. (1992). Developing and teaching an inclusive curriculum. *On Diversity in Teaching*

and Learning Series, No. II. Boulder, CO: Faculty Teaching Excellence Program and the President's Fund for the Retention of Minorities and Women.

Grasha, A. F. (1990). Using traditional versus naturalistic approaches to assessing learning styles in college teaching. *Journal on Excellence in College Teaching, 1,* 23-38.

Gregorc, A. F. (1979). Learning/teaching styles: Their nature and effects. In J. W. Keefe (Ed.), *Student learning styles: Diagnosing and prescribing programs* (pp. 19-26). Reston, VA: National Association of Secondary School Principals.

Gullette, M. M. (1992). Leading discussion in a lecture course. *Change, 24* (2), 32-9.

Kolb, D. A. (1981). Learning styles and disciplinary differences. In A. W. Chickering and Associates (Eds.), *The Modern American College* (pp. 232-55). San Francisco: Jossey-Bass.

Krupnick, C. G. (1985). Women and men in the classroom: Inequality and its remedies. In M. M. Gullette (Ed.), *On Teaching and Learning,* Vol. 1 (pp. 18-25). Cambridge: MA: Harvard-Danforth Center.

Kurfiss, J. G. (1988). *Critical thinking: Theory, research, practice, and possibilities.* ASHE-ERIC Higher Education Report No. 2. Washington, DC: Association for the Study of Higher Education.

Maher, F., & Tetreault, M. K. T. (1992). Ensuring equitable participation in college classes. In L. Border & N. Chism (Eds.), *Teaching for Diversity* (pp. 57-74). *New Directions for Teaching and Learning, No. 49.* San Francisco: Jossey-Bass.

Myers, I. B. (1962). *Manual, the Myers-Briggs type indicator.* Palo Alto, CA: Consulting Psychologists Press.

Perry, W. G. (1970). *Forms of intellectual and ethical development in the college years: A scheme.* New York: Holt, Rinehart, and Winston.

Perry, W. G. (1985). Different worlds in the same classroom: Students' evolution in their vision of knowledge and their expectations of teachers. In M. M. Gullette (Ed.), *On Teaching and Learning, Vol. 1* (pp. 1-17). Cambridge: MA: Harvard-Danforth Center.

Witkin, H. A. (1976). Cognitive styles in academic performance and in teacher-student relations. In S. Messick & Associates (Eds.), *Individuality in learning* (pp. 38-72). San Francisco: Jossey-Bass.