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ABSTRACT

This 1990 study of 165 undergraduates considered the application of cognitive development theory to social justice education. The table of contents presents the following sections: (1) "Why apply cognitive development theory to social justice education?" (2) "What is cognitive development?" (3) "Setting the background and context for the study"; (4) "Course goals in the light of cognitive development theory"; (5) "The Research: Student participants and methodology"; (6) "Assessment instruments"; (7) "Findings and analysis"; (8) "Application of research findings: theory to practice"; and (9) "Next steps." Pre- and post-test results were analyzed for two assessment instruments: (1) Baxter-Magolda's Measure of Epistemological Reflection (MER); and (2) Rest's Defining Issues Test (DIT). Statistical data were interpreted with course goals and teaching/learning dynamics considered, based on the findings. Numerous tables and figures are used to illustrate the research. An extensive bibliography is included. (EH)

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**"THE SOCIOMORAL DEVELOPMENT OF UNDERGRADUATES
IN A 'SOCIAL DIVERSITY' COURSE:
DEVELOPMENTAL THEORY, RESEARCH AND INSTRUCTIONAL APPLICATIONS
By Maurianne Adams and Yu-hui Zhou-McGovern**

SUMMARY

This cognitive and sociomoral developmental study of 165 college students enrolled in a general education "diversity core" undergraduate course on social diversity and social justice in Spring 1990 at a large Northeastern public research university, considers the application of cognitive developmental theory to social justice education. It presents and statistically analyzes repeated measure test results from two assessment instruments: Baxter-Magolda's Measure of Epistemological Reflection (MER), a Perry measure for cognitive development and Rest's Defining Issues Test (DIT), a moral judgment measure adapted from Kohlberg. The college student sample includes two sub-groups: 97 students who enroll in open sections and 68 resident assistants who take the course as part of their inservice training. The paper describes each instrument, reports the findings of a positive direction of change on all measures all students in the sample, and statistically analyses between-group differences, course effects, gender effects and ethnic/cultural differences. Specific questions addressed by this initial study include

(1) Descriptive Statistics: What are the demographic, developmental and attitudinal characteristics of students who enroll in this Social Diversity course? (2) Effect of the Course: Does the credited semester-long course on Social Diversity have a statistically significant effect on the epistemological and moral development of students who enroll and/or on changes in their social attitudes and learning style orientations? (3) Effects of Age, College Class, and Gender: If effects attributed to the course are found, are these effects the same if the demographic variables of age, college class, and gender are considered in relation to the developmental variables?

Significant course effects ($p < .001$) were found for MER overall and component scores and for the DIT. Age was not found to be significant. Gender effects ($p < .05$) were found for the MER overall and component scores; college class effects were found for one MER component score. Descriptive statistics are interpreted in light of the aspects of challenge and support considered characteristic of social diversity and social justice education. Course goals and teaching/learning dynamics are considered in light of the cognitive and sociomoral developmental findings.

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THE SOCIOMORAL DEVELOPMENT OF UNDERGRADUATES
IN A 'SOCIAL DIVERSITY' COURSE:
DEVELOPMENTAL THEORY, RESEARCH,
AND INSTRUCTIONAL APPLICATIONS

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The Sociomoral Development of Undergraduates in a 'Social Diversity'
Course: Developmental Theory, Research and Applications

1. Why apply cognitive development theory to social justice
education?

The purpose of this paper is, first to consider whether theories of cognitive development can shed light upon the processes of social justice and social diversity education and then, to present evidence of cognitive developmental change in a college-level social diversity course designed according to developmental principles. Theories of cognitive development (Perry, 1970, 1981; Belenky et al, 1986; Kitchener, 1982; Kitchener and Fischer, 1990) have been used to illuminate the evolution of orderly changes in college student thinking from simple to complex, from external authority to internal agency, and from clear-cut certitudes to comfort with doubts, uncertainty and independent inquiry (Pascarella and Terenzini, 1991). These cognitive patterns act as filters or lens through which an individual will ascribe meaning to his or her experiences, interactions and ideas.

Studies have shown that college students develop skills in complex thinking, self reflection, tolerance for uncertainty and ambiguity, and the ability to take on multiple and divergent perspectives (Brabeck, 1983, 1984; Kitchener and King, 1984, Kitchener et al 1989, 1990; Baxter Magolda, 1992), qualities which are considered necessary if not sufficient for social justice and social diversity education. College curricula that deal with social justice and social diversity call for many of the qualities described in the

developmental literature with regard to critical thinking (Kurfiss, 1988; Lewis, 1989), openness to conflicting perspectives from readings or classroom discussions, and, most especially, the ability to reflect upon one's experience, prior beliefs and feelings from another's perspective.

The use of college-level courses to teach about social diversity and social justice, and to help students learn the cross-cultural skills and competencies they need to interact across ethnic groups has become widespread in recent years (Schoem, 1993; Adams and Welsch, 1992; Schmitz, 1992; Gaff, 1991). Whereas early models for such courses tended to stress incorporation of new scholarship into course content, voices from the classroom now argue against maintaining the traditional lecture mode or "switchboard" approach to whole class discussion (Schmitz, 1992; Maher and Tetreault, 1992). Descriptive accounts of Women's Studies, Ethnic Studies and multicultural classrooms, in turning their attention from curricular content to the dynamics of the teaching and learning process, now question traditional teaching norms and examine the full range of classroom dynamics (Cochran-Smith and Lytle, 1993; Perry and Fraser, 1993; Adams, 1992; Chism and Border, 1992; Butler, 1991; Women's Studies Quarterly, 1990).

In these and other reports from experimenting college classrooms, teachers write about creating a safe climate for "difficult dialogues"; they consider the relative weight of teacher and student authority; they analyse the many sides of student resistance, anger, confusion, shame in response to race-related or similar social justice issues. As more inclusive course curricula

bring new voices and seemingly divergent perspectives into the college curriculum and classroom, college teachers register their concern about the ways in which "difficult dialogues" and dynamics inhibit rather than facilitate the exchange of opinion and freedom of expression so prized in higher education. Instructors report student resistance to information that contradicts popular stereotypes; are dismayed by unexpected classroom dynamics such as silence, resistance or hostility from their students; surprised by volatile student interactions dominating and intimidating open class discussions; puzzled by either/or and right/wrong dichotomous thinking unresponsive to subtler in-between shadings and complexities.

Clearly, any full analysis of these challenging classroom dynamics belongs as much to the domain of emotion as of cognition. Yet there is also a cognitive and intellectual component to these "difficult dialogues," in that students are being asked in social justice classes to relinquish outmoded and less complex thinking modes and to question inappropriate and stereotypic beliefs and attitudes. For many students it may seem especially difficult to give up clear-cut societally-endorsed beliefs and stereotypes on complex issues of race, gender or sexual orientation when the end-point seems fraught with guilt or shame and the in-between intellectual and emotional journey full of uncertainty. Here is one college teacher's account of just such student dilemmas:

My students express some disappointment, particularly early in the semester, that I do not provide them with "answers" to the questions of intergroup relations. Students frequently come to my course with a dualistic worldview, looking for just two

sides to every issue -- a right side and a wrong. They come ready to argue and defend what they view as right and attack and ridicule what is wrong, or they feel guilty if they might be perceived as being in the wrong....It takes a considerable amount of time as well as personal and intellectual work for students to accept the absence of answers and to bring an intellectual perspective that incorporates many competing and complementary views of individual issues (Schoem, 1993, p. 17).

The values, beliefs and biases that both students and instructors bring to classes on social diversity and social justice, the tenacity of their stereotypes and entrenched modes of thinking, their unexpectedly emotional attachments to beliefs and thought processes rooted in trusted home, school and religious communities:-- these forces taken together suggest a powerful and multidimensional cognitive developmental agenda for social diversity and social justice education in our colleges.

It should be stressed from the outset that cognitive development is a broad, global, inclusive construct, involving more than abstract intellectual processes or intelligence per se. The construct of cognitive development does not separate thought processes from the emotions that often attach to ideas. Rather, it describes the procedures by which the "I" as knower shapes and makes personal meanings out of experience together with the personal evolution of meaning-making, from simple to complex, from concrete to abstract, from unidimensional to multidimensional. It involves as well the coordination of multiple perspectives and of the personal with the social, as well as reflection upon one's thought processes (meta-

cognition) and one's personal experiences (self-knowledge). These meaning-making processes are ongoing and evolutionary in the sense of moving from simple to complex, and they occur in everyday real-life situations of which the college classroom is but one very special instance. When one consider the cognitive and affective learning that goes on in a course on racism, for example -- the sources of information, contradictions to accepted modes of thinking, emotional associations, unexpected perspectives on one's assumptions, attitudes and behaviors -- the classroom may seem a developmental pressure cooker of sorts, in light of the multifaceted aspects and potential intensity of "meaning making" that take place.

Cognitive development will be understood in this paper to include the progressive changes in students' (and instructors') assumptions about knowledge, truth and authority, generally grouped under the term "epistemology." These may seem to involve hefty questions somewhat peripheral to racism and other social justice issues. until we consider that a student's discomfort with complex thought or with the multifaceted rather than dichotomous framing of questions of social justice can be related to his or her general beliefs about knowledge as being either simple or complex. Similarly, a student's disrespect for viewpoints or experiences outside his or her immediate purview, distrust of information that contradicts traditional authorities, and disbelief in the potential to be a knower or authority with the responsibility for action that comes from internalized authority -- these beliefs about knowledge, truth and authority are part of the social justice dialogues we understandably describe as "difficult."

This paper makes the case for bringing cognitive development theories to bear on both the curriculum and the classroom procedures of social justice education. It examines cognitive developmental change among college students enrolled in a social diversity course that has been designed using cognitive developmental theory. The research reported in this paper was undertaken, first, to confirm or correct the anticipated developmental profile of students in the course; second, to look for developmental course effects; and third, to enable course instructors to revise their developmental hypotheses about the students and adjust the teaching/learning process according to those effects. It is part of an on-going exploratory study of cognitive development, learning styles, and attitudinal change among several cohorts of college undergraduates who participate in a campus-wide credited "diversity core" course on social diversity and social justice. Although the learning style and attitudinal findings are not discussed in this paper, it is worth noting that we found change in all areas examined (Adams and Zhou, 1990, 1993). The developmental theories that shape the social diversity course described in this paper include the work of Perry (1970, 1981) and Belenky, Clinchy, Goldenberger and Tarule (1986, 1985a, 1985b) in epistemology; Gilligan (1982), Kohlberg (1969, 1976, 1989) and Rest (1976, 1979, 1986) in moral judgment; and Hardiman and Jackson (1992, 1988), Tatum (1992), Cross (1991), and Helms (1990) in racial identity development. Less important but worth noting briefly are theories of psychosocial aspects of identity (Erikson, 1959; Chickering, 1969; Chickering and Reisser, 1993; Pascarella and Terenzini, 1991), social perspective-taking (Selman, 1976, 1980) and self-reflection/self-knowledge

(Weinstein and Alschuler, 1985). This paper, however, focuses solely upon epistemological development and moral judgment, while noting that the broader range of cognitive, psychosocial and social identity development theories are needed ultimately to flesh out a more complete student development picture.

What is cognitive development?

Briefly, the process of cognitive development outlined by Perry (Perry, 1970, 1981) and by Belenky, Clinchy, Goldenberger and Tarule (1986, 1985a, 1985b) maps students' movement through qualitatively different views of knowledge from certainty through uncertainty toward relativistic or contextual thought. Whereas Perry's model was based upon interviews with male subjects, the Perry interview itself provided a starting point for the efforts by Belenky, Clinchy, Goldenberger and Tarule "to uncover those themes that might be more prominent among women" and to bring into focus "what else women might have to say about the development of their minds and on alternative routes that are sketchy or missing in Perry's version" (Belenky et al, 1986, p. 9). Thus, the Perry and Belenky et al approaches present different developmental pathways within similar qualitative positions (Baxter Magolda, 1989; Rodgers, 1990). In the discussion below, the two models will be used interchangeably. Perry's terms will be linked to Perry positions, in anticipation of the language used later to present the research findings. The evolution from Received Knowing through Subjective and Procedural Knowing to Constructed Knowing (drawing upon "connected" rather than "separate" modes) is drawn from Belenky, Clinchy, Goldenberger and Tarule.

These two theories describe the Dualist (Perry Positions 1 and 2) or Received Knower's gradual loss of the conviction that knowledge is certain and authority absolute; the Multiplist (Perry Position 3) or Subjective Knower's often reluctant realization that some uncertainty is undeniable, that truth may not always be known or that truths may include subjective knowing, and that authorities can only suggest procedures rather than give definitive answers; the Relativist (Perry Position 4) or Procedural Knower's acceptance of uncertainty as a new kind of certainty, but without criteria as yet for making informed judgments until the Contextual (Perry Position 5) or Constructed Knowers learn themselves to discover the criteria for informed judgments, to think contextually and to establish commitments within a framework of uncertainty.

For the social justice college educator, the movement from multiplicity or subjective knowing to relativism or procedural knowing is especially illuminating. Whereas Perry's term "multiplicity" represents the student's departure from dichotomous thinking, Belenky's terms "subjective knowing" and "connected knowing" highlight women's tendency to look inward, to pay attention to "gut" knowledge, to listen empathically to the experiences and voices of others in the class (Baxter Magolda, 1989; Clinchy, 1993; Kurfiss, 1988). For men and women alike, multiplicity and subjective knowledge represent a crucial turning point at which complexity is acknowledged, but in which intuition, feeling or "common sense" can become substitute authorities (Kurfiss, 1988).

Similarly but more briefly, Kohlberg's account of the development of moral judgment situates the emergence of complex and

inclusive moral reasoning in one's encounter with increasingly complex moral perspectives or moral dilemmas that challenge one's present level of moral understanding. In effect, it traces the evolution of one's meaning making on questions of rights and justice, from preconventional concerns with obedience or punishment (stage 1: "catch me if you can") and instrumental motives of gain and exchange (stage 2: "what's in it for me"), to conventional concerns with the mutual expectations and norms of one's social group or larger community (stage 3: "everybody does it") and rules or laws for social order (stage 4: "without rules, there is chaos") to postconventional moral thinking that takes broad, inclusive and principled human values as the basis for moral judgment. Kohlberg has described an optimal developmental environment that involves exposure to higher levels of moral reasoning, stimuli that pose conflicts or contradictions to one's current reasoning structure, and an open discussion format in which conflicting moral views expressed by peers can be compared (Kohlberg, 1969, 1976; Kohlberg and Higgins, 1989). Gilligan's important critique of Kohlberg brings the evolution of questions of care and responsibility into moral development discourse (Gilligan, 1981, 1982).

Social justice and diversity education presents frequent examples and situations in which students discuss and argue from real life experiences with conflicting perspectives on situations that are similar in form, but not subject, to the hypothetical dilemmas initially posed by Kohlberg and the real-life dilemmas posed by Gilligan. The evolution of moral judgment seems deeply implicated in the process of students' understanding the dynamics of real

experiences and situations of racism or sexism, anti-Semitism or homophobia and of their helping each other discover new ways of interacting that are congruent with more complex understandings. Moral judgment also provides a developmental focus for social perspective-taking, role-taking, empathy and interpersonal understanding, as discussed by Perry (1970, 1981), Benack (1984), Belenky et al (1986) and Clinchy (1993).

Thus, the sociomoral cognitive developmental journey from a dichotomous to a contextual way of thinking, from an individual to a broader and more inclusive ethical perspective, and from an external to an internal locus of authority and responsibility, provides an illuminating theoretical framework for the special challenges and opportunities that occur in social justice and social diversity education. It helps account for students' initial resistance to multiple perspectives; it helps explain student discomfort in the absence of certainties in social justice problem solving; and it sheds light on the cognitive skills needed for complex problem-solving and abstract thought in an emotionally charged, personalized domain. Further, it provides intellectual support for an educational process that affirms the internal locus of judgments and decisions as well as the broadening of authority and knowledge away from the teacher and toward one's peers and one's self that often characterize social justice and diversity educational processes (Perry and Fraser, 1993; Fried, 1993; Tatum, 1992).

Other researchers have documented the applicability of Perry's model to social perspective taking, the coordination of multiple frames of reference, and the ability to differentiate among

experiences and points of view (Benack, 1984, 1988; Lovell, 1990; Clinchy, 1993). Perry's model has been applied to specific academic disciplines of college teaching (Copes, 1987; Hays, 1987) and to college outcomes more generally (Knefelkamp, 1974; Heffernan, 1975; Mentkowski et al, 1983; Pascarella and Terenzini, 1991). It has been used to study intellectual development at women's colleges (Mentkowski et al, 1983, Clinchy and Zimmerman, 1982) and as a template within which women's and men's ways of knowing represent different cognitive styles (Baxter Magolda, 1992, 1993). Further, the Perry model has been shown to suggest the emergence and evolution of social perspective taking and empathy (Benack, 1984; Lovell, 1990), meaning the capacity to coordinate multiple frames of reference and to differentiate "my experience" or perspective from "your experience" or perspective.

The relativist . . . can understand the differences in experiences as reflecting the differences in perspectives.

Unlike the dualist, the relativist expects that people will have somewhat different interpretations of the same event. He or she sees no contradiction in multiple views of a situation, each having 'validity' or 'truth'" (Benack, 1984).

And finally, the Perry scheme has become an accepted reference point for college instructional design and assessment (Knefelkamp, 1974; Widick, 1978; Mentkowski, 1983), by which college student learning environments are directed toward contradiction or disequilibrium to promote developmental change, or toward support and moderated diversity when the cognitive contradictions may seem overwhelming.

Setting the Background and Context for the Study

The undergraduate course on social diversity and social justice is designed as one among many options to fulfill the diversity core within a campus-wide general education curriculum required of all university undergraduates. It is conducted in multiple sections at a large Northeastern public university campus with an undergraduate enrollment of 16,000 and a residence hall population of 11,600. Course subjects within the five-subject course curriculum of racism, anti-Semitism, sexism, homophobia and disability oppression are introduced one at a time, in two week segments over a fourteen week semester at the same time that parallels and interconnections are incrementally drawn among them.

The course takes into account the fact that many of the students at the university and thus in this course, whether from mainstream or underrepresented social groups, report that they come from essentially monocultural home neighborhoods and high school peer cultures that have not prepared them for the diverse populations they encounter on campus, the complexity of intergroup conflicts and perspectives, the multicultural course content of some of their classes and the multicultural norms, policies and programs in the residence halls and campus activities. Whether or not they are themselves from dominant or targetted social groups, the expectation on campus of receptivity, acceptance and respect toward cultural and social differences is most often not practised or even valued in their homes or neighborhoods or among their peers and may even appear to contradict the assumptions and beliefs of their families, peers or religious education.

Because students come to the social diversity course with beliefs, attitudes and stereotypes firmly in place, instructional activities are based on educational goals that integrate cognitive development theory with the active, personal and experiential aspects of social learning (Adams and Marchesani, 1992; Bonwell and Eison, 1991; Johnson et al, 1991; Kolb, 1984). These educational goals include (1) awareness of student's own multiple social identities as well as those that differ from theirs; (2) knowledge of the broad dynamics as well as the specific manifestations of social oppression sufficient to allow for continued future learning; (3) conceptual understanding and methods of critical analysis drawn from those aspects of psychology and sociology which describe the socialization process and help account for the systemic maintenance of oppression; (4) recognition of real-world examples by linking new concepts and perspectives to students' everyday, personal observations and experiences; and (5) identification and practice for new ways to intervene on student's own behalf or as allies for members of targetted social groups. The residence hall locale for these classes facilitates identification of numerous examples of issues discussed in class and provides challenging opportunities for recognition and intervention in daily life.

It is important to note that these five course goals have emerged from an analysis of the range of developmental challenges typically experienced by undergraduates in social diversity courses and workshops over more than a decade. We have learned to take into account the challenges coming from course content, from student cross-cultural interactions inside the course, from an active, experiential

pedagogy, and from the interaction of abstract theory-based readings with personal narratives and voices. Our assesement of these developmental challenges suggested that this course be directed toward students ready to move beyond dualistic, right / wrong dichotomous thinking in order to respect and consider the "multiplistic" course content and diverse social perspectives. Our assessment took into account the "multiplicity"-demands of the actual course content, e.g. the interaction of theory and experience; multiple information sources such as films, readings, instructors, guest speakers and student panels; writing assignments directed toward honest self-reflection on prior experiences; interactions among socially diverse students in smaller or larger group dialogues; and real-world observation in the residence halls or remembered experiences back in students' home communities (Adams and Marchesani, 1992).

Course Goals in the Light of Cognitive Development Theory

What then are the cognitive and sociomoral development implications of the five educational goals that shape both the curriculum and the teaching and learning process?

(1) "Raising Awareness": By "raising awareness" we mean identifying and personalizing specific social identities related to the issues of the course (e.g., race, gender, sexual orientation) and exploring the experiences among dominant and targetted social group members within each category (e.g., men and women, heterosexual and gay, lesbian or bisexual, Americans of European heritage or Americans of African, Asian or Hispanic heritage), with an emphasis upon how these differences are regarded in the mainstream culture as well as in the college classroom. "Awareness" of the complexities of cultural

difference and societal oppression is not a given when students enter the course, but emerges as a gradual realization and remains the single most critical indicator of attitudinal change. This increased awareness is evident less as academic knowledge and related more to changes in attitude, receptivity, sensitivity and openness to others. For example, European American students tend to see themselves exclusively as "an individual" and "a person," while at the same time generically and stereotypically grouping individual members of ethnically targetted groups, an internal contradiction that we believe may be related to competing developmental agendas: working out one's psychosocial identity ("who I am") in relation to a newly enlarged understanding of one's racial or ethnic identity, while being asked in the course to coordinate the two. Further, there is the process, also related to developmental processes, of placing personal experience and observation (one's own and that of others) into broad, systemic, theoretical perspective, a process of coordinating abstractions with concrete, sometimes personal facts. This also may involve coordinating emotion with thought.

(2) "Knowledge": This goal involves the traditional area of college teaching, the acquisition and utilization of new information as a basis for further understanding and action. Information is drawn from multiple sources including personal narratives, historical documents and statistical figures, and it is presented in multiple formats such as readings, lectures, films, peer panels, guest speakers or in-class shared experiences. This information is used to provide historical context and to reexamine prior misinformation, stereotypes and prejudice; to fill in blanks of missing history or social

invisibility; and to establish and model a pattern and expectation of life-long inquiry and learning.

Although some of this information is personal, derived from individual stories and from local incidents of racial, sexual, anti-Semitic or homophobic harassment, the context broadens to include, for example with reference specifically to racism: racial stereotypes in the media; statistical data concerning differential educational, income and employment opportunities for people of color; historical backgrounds of legal and de facto segregation, exclusionary quotas, national internment policies. This information is often new for the students and generates powerful dissonance and contradictions with prior belief systems of American fairness or meritocracy. It is often difficult for students to take all this information in, especially at the concrete, personal and emotional level.

(3) Conceptual Understanding: The major theoretical constructs and conceptual organizers that shape and integrate the course also provide for students a set of parallels and interconnections across the five subject areas. These overall constructs and organizers, drawn from the social and behavioral science literature, include: (1) the process of social learning (conceptualized as a "cycle of socialization"); (2) the characteristics of social identity and social group membership; (3) the relationship between dominance and subordination, or "agent" and "target" groups in relation to social privilege and power; and (4) the levels (conscious and unconscious) and types (personal, institutional, cultural) of societal oppression in several historical contexts. Other concepts, such as stereotyping, scapegoating, internalization or collusion, and allies, are introduced

as they prove useful in naming and understanding complex intrapersonal processes and interpersonal interactions.

These major constructs are introduced gradually and incrementally, woven in and out of class discussions and homework assignments over fourteen weeks and across the five subject areas. For example, the "cycle of socialization" is presented early, not only as a foundational concept but because of its usefulness in helping students to organize and make sense of their own social learning about racism or sexism, for example. The constructs engage students in a higher order of formal operational skill that also involve subsidiary cognitive and metacognitive skills. For example, we ask students to consider unemployment statistics for African American men in relation to institutional discrimination; to compare and contrast how individual stereotyping may operate against Americans of African, Asian, or Latino/a descent when prejudiced individuals have positions of institutional power; to reflect upon personal experiences in which they have interacted as dominants or targets in their interpersonal relationships or institutional roles. In these efforts, we are greatly helped by the "ways of knowing" theories of Perry and Belenky et al to anticipate students' tendency to dichotomize complex questions, to reduce multiple perspectives to choices of either/or, and at times to fail in their efforts to see relations between concrete information and broad principles and between examples presented in the classroom and experience presented in daily life.

(4) Recognition of real-world examples: Recognition as a learning goal asks that students begin to look at their immediate world differently, to recognize the features of individual prejudice as well

as institutional or cultural discrimination (such as the baiting of mixed-race couples at campus socials or disbelief when harassment is reported by students of color). Such recognition involves students' understanding and attempting to disentangle the multiple factors involved in real-life experience such as the compounding effects of alcohol and competing team loyalties that complicated and obscured the racism in one campus brawl (Hurst, 1988; Frontline, 1988) or the mutual stereotyping internalized and at work among African American, Latino, and Asian American student groups competing for scarce financial and programmatic resources on college campuses.

Recognition appears to involve four cognitive factors or sets of skills: first, recognizing the "figure" of prior classroom insights (i.e., examples of stereotypes) in the "ground" of current everyday life (i.e., peers telling jokes based on stereotypes). Second, for dominant students especially, this means giving up the belief that violence or harassment is "normal," caused by or exaggerated by the victim, and beginning to imagine how things might be different. Third, recognition involves acknowledging the complex ingredients of daily events and not simplifying them. And fourth, it involves cognitive "transfer" or "lifting" from the specific domain of classroom learning to the messier arena of everyday life (Alexander and Judy, 1988; Perkins and Salomon, 1989). The cognitive developmental literature illuminates the difficulties of disengaging from inside one's personal experience sufficiently to reflect from a broader or a different social perspective (Kegan, 1982; Perry, 1981).

(5) Intervention skills: Admittedly difficult, "recognition" as a learning goal can be practiced through in-class and homework case-

study assignments and discussions that bring together real-world experience and classroom learnings. But recognition further implies intervention if the cycle is to be broken -- and effective intervention, which cannot occur without prior recognition and identification of what has occurred, also involves problem-solving, generating strategy-options and utilizing interpersonal skills that must also be learned and practiced if students are to feel capable to "do" (at least at the interpersonal level) as well as to "know."

Once students have tested out the applicability of classroom learnings by analyzing daily events in case study examples -- incidents drawn from campus life or remembered from high school or home neighborhoods -- they often want to identify and practice ways to transform those experiences, to intervene in the dynamics of racism. If white, they seek to become reliable, effective allies; if students of color, they want ways to end their collusion or internalization, or to act on their own behalf. Students do this first by reflecting on their personal actions in actual situations ("What did you actually do? What other options occurred to you at the time?"), and second by beginning to imagine other possible behavioral responses or proactive interventions ("What do you wish you had done? What alternatives occur to you now, upon reflection? What obstacles or enablers made these alternatives seem either difficult or possible? What risks did you feel?"). They are then prepared to try out alternative scenarios by projecting into the future ("What might you do if ..?" What obstacles or enablers would block or ease various courses of action?").

Students in this way can learn to identify and acknowledge

their own differing risk levels for various intervention scenarios as they develop peer support from within the class to practice, affirm and carry out creative and positive interpersonal or campus change strategies. They identify spheres of influence (such as close family, intimate relationships, friends or peers at work or school or places of worship, student activities, student government, student newspapers, residence halls, classrooms), while also acknowledging that the relatively high or low levels of risk involved may often vary inversely with the degree of intimacy and personal attachment.

The Research: Student Participants and Methodology

Prior experience had also suggested that first semester students were often overwhelmed by the course material, while second and third year students felt stimulated and challenged by it. It struck us that cognitive developmental theory would illuminate the different meanings that students constructed out of their course experiences. Such considerations as these led to trade-offs among critical choice points, such as directing the course to second and third rather than first year students or reducing the variability of information and perspectives or the number of content five issues. It became all the more important to inform such choices through a trustworthy developmental profile for students entering and leaving the course, and at the same time, to test the possibility that the "multiplicity demands" in the course, that is, the dissonance and contradictions experienced by students' learning about social diversity and social justice, might generate developmental spurts in relevant domains (Fischer, 1983, 1984).

Accordingly, during the Spring semester, 1990, all students

enrolled in the multiple-section course "Social Diversity in Education" were asked to participate in an on-going developmental and attitudinal study (Adams and Zhou, 1990, 1993). This course attracts undergraduates as an option toward fulfilling their university-wide general education "diversity core," but also includes sections for resident assistants who take the course for both the "diversity core" and as part of their inservice training. All sections follow essentially the same curriculum and instructional design; all instructors participate in pre-service training and regular in-service meetings. Each 25 student section is likely to be more than 60% female, 75-80% Americans of European heritage, and 20-25% of African American, Asian American, Latino/a or Native American heritage.

Of 301 students enrolled in the course, 165 agreed to participate and completed the study; of this 165, 68 were resident assistants. An analysis reported elsewhere of the similarities between these resident assistants and all other students found significant differences between the two groups on several but not most measures (Adams and Zhou, 1993). Nonetheless, we differentiate between the two groups in our presentation and discussion of findings in order to highlight related cognitive developmental implications for instructional design.

In the presentation of findings, students in general sections constitute Group 1 and resident assistants constitute Group 2. 63% of the overall sample is female; 37% male. The proportion of students of color in the sample is somewhat larger than the 20-25% for the class. The age range is 18 to 24, with the resident assistants tending to be older as a group; most other students fall between 18 and 21 years of age (see Figures 1 and 2). Similarly, although all four college

classes are represented in the sample, only Group 1 has second semester students and Group 2 has the preponderance of third and fourth year students (Figures 3 and 4). In Group 1, 50% are 18 or 19; 60% are second semester or second year students. In Group 2, there are no 18 year olds and 52% are age 20; 75% are third and fourth year students.

Age Across Group 1

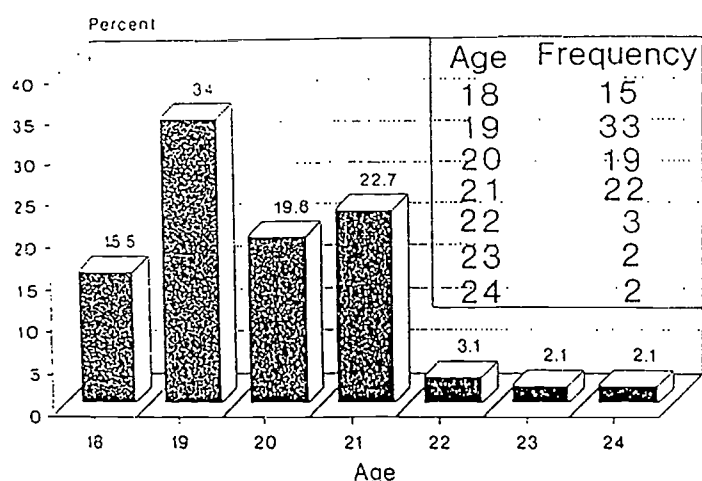


figure 1

Age Across Group 2

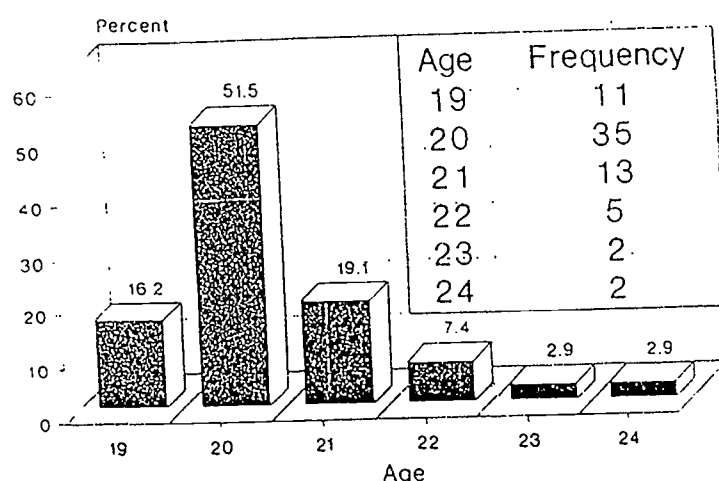


figure 2

College Class Across Group 1

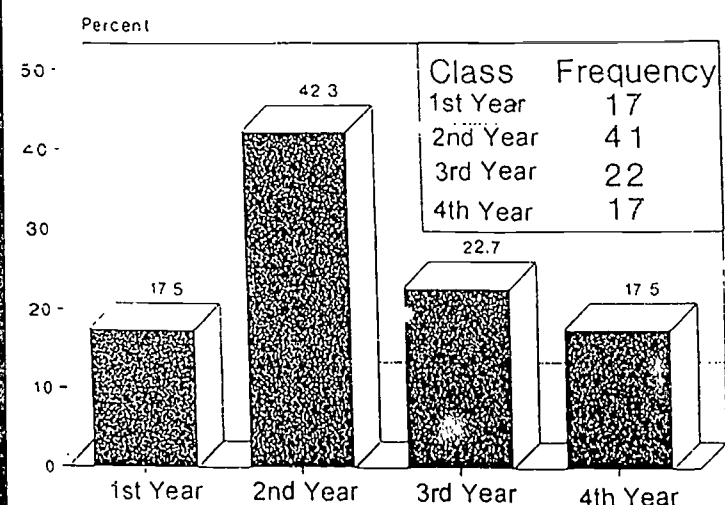


figure 3

College Class Across Group 2

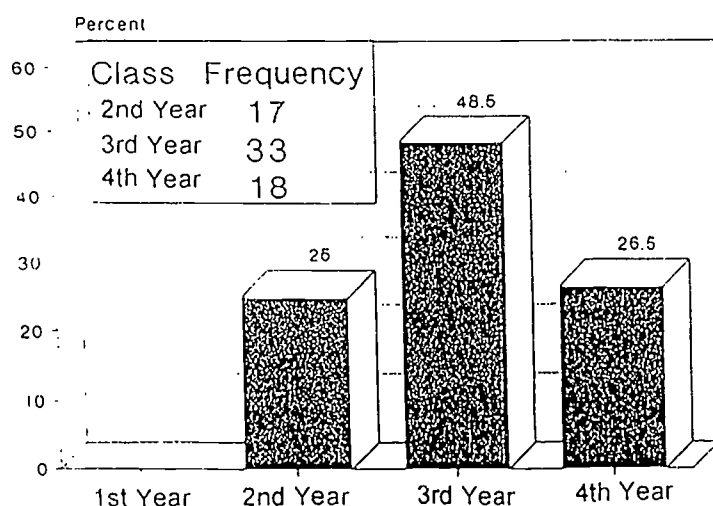


figure 4

The study was presented to all students as an effort by course planners to understand student attitudes toward learning and knowledge as they are involved in the course. The study was conducted by repeated measure design. Time 1 testing occurred during the first few weeks of classes and Time 2 during the final week of classes. Assessment instruments were completed at home and turned in anonymously by the students to an Academic Affairs Office. Students were assured that their instructors would not participate in the study or see their individual results; they were also assured that there were no right or wrong answers to the questions and that their answers would have no bearing on their final course grade.

Assessment Instruments

The Measure of Epistemological Reflection (MER) is a standardized, gender-inclusive, written production instrument based on the Perry scheme as augmented by the work of Belenky, Clinchy, Goldenberger and Tarule. It consists of a series of written questions that probe separately six domains that had been intermingled in Perry's and Belenky's research: educational decision-making, role of the learner, role of the instructor, role of peers, evaluation, and nature of knowledge (Baxter Magolda, 1983, 1984, 1989; Baxter Magolda & Porterfield, 1985, 1988). The written justifications or reasoning structures evoked by the probes provide units of analysis for coding by trained raters who use a scoring manual for position descriptions and reasoning structures within each of the six domains.

The search for an equally gender inclusive, objectively scored moral judgement measure led to the Defining Issues Test, based on Kohlberg's theory of moral judgment as modified by Rest (Rest,

1976, 1979, 1986). As a recognition or preference instrument it produces higher stage levels than an interview or sentence completion format such as the MER (Rest, 1976; Mines, 1982). The DIT consists of moral dilemmas derived from Kohlberg, followed by questions and probes to establish a subject's reasoning structures or justifications for the preferred response to the dilemma. It is computer scored and the scoring system provides a profile for each the subject's responses at each stage level, the P score (percentage of Principled or stage 5 and 6 responses), reliability and consistency checks and several other features (Rest, 1979; Mines, 1982).

The DIT over the years has been used in numerous studies to measure increases in moral judgment attributed to educational programs and other interventions across age groups and educational levels (Rest, 1986). Rest provides detailed analyses of these, from a cross-sectional and longitudinal perspective (Rest, 1979) and across culture, gender and religion (Rest, 1986). According to analyses and meta-analysis of a representative sample of 56 DIT studies and over 6000 subjects, the gender effect on the DIT is thought to be insignificant, as is the interaction between gender and age or education (Rest, 1986).

Findings and Analysis

(1) Descriptive Statistics. We started with the question, What are the epistemological (cognitive) development and sociomoral (moral judgment) characteristics of students enrolled in the Social Diversity course? This question is addressed by the Time 1 assessments using the Measure of Epistemological Reflection (MER) and the Defining Issues Test (DIT). MER findings include overall scores, plus two

subsidiary scores thought to be relevant predictors of success in the course: Domain 4 "Role of Peers" and Domain 6 "Nature of Knowledge." Because Time 1 occurred during the first few weeks of the semester, it affords a profile of the students as they initially engage with the social justice curriculum. Time 2 scores, taken at the end of the semester, indicate the rate and the direction of change. These MER mean scores show students as a population to be in transition from late Dualism (Perry position 2) / Received Knowing to early Multiplicity (Perry position 3) / Subjective Knowing at Time 1 and by Time 2, either stabilizing Multiplicity or moving toward Relativism (Perry position 4) / Subjective Knowing. Mean scores for the MER overall score (TPR is Total Protocol Rating) and for the DIT (P or "principled thinking" score), appear in Table 1 below and in Figures 5 and 6.

The Defining Issues Test (DIT) "P" ("principled reasoning") scores for Times 1 and 2 locate the greater percentage of groups somewhat prior to "principled" reasoning (postconventional thinking, level 5), as shown by Table 1 and Figure 6 below. Both groups have Time 1-scores within decimal points of each other, but there are larger gain scores for Group 2 (4 points) than for Group 1 (2 points).

Table 1: Group 1 and 2 Mean Scores for MER and DIT

	Times 1 and 2			
	Group 1		Group 2	
	mean	s.d.	mean	s.d.
MER TPR Time 1	2.8	.32	2.9	.33
TPR Time 2	3.1	.34	3.2	.36

DIT (P) Time 1	40.3	16.77	40.7	13.86
(P) Time 2	42.65	14.43	44.95	14.43

Comparison of MER Mean Scores
Group 1 and Group 2

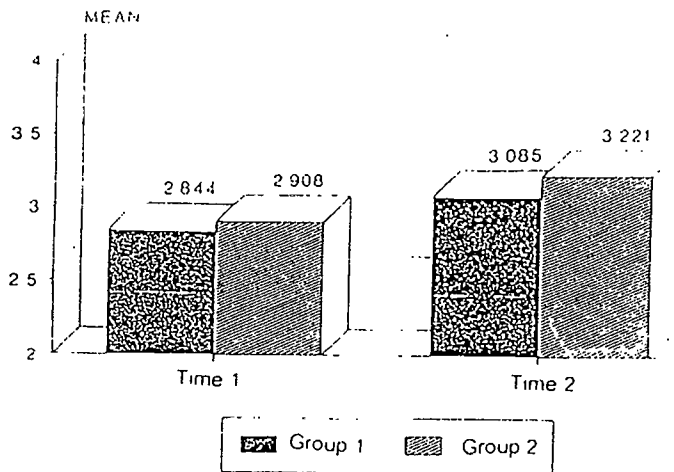


figure 5

Comparison of DIT P-Scores
Group 1 and Group 2

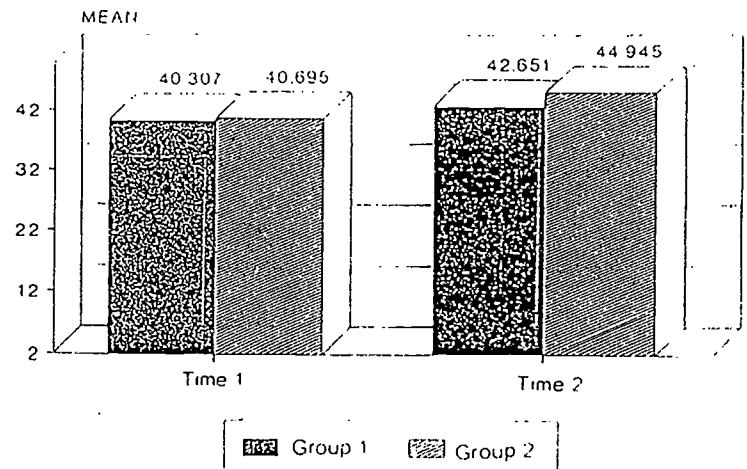


figure 6

Two of the subsidiary domains of the MER -- Domain 4 "Role of Peers" and Domain 6 "Nature of Knowledge" -- probe students' interest in the viewpoints of their peers and their handling of differing perspectives or contradictions in knowledge, as shown in Table 2 below. For Group 2, the Time 1 and Time 2 profile of scores in these two subsidiary domains shows higher initial as well as greater gain scores than the MER total protocol rating.

Table 2: Group 1 and 2 Means Scores for MER 4 and MER 6
Times 1 and 2

	Group 1		Group 2	
	mean	s.d.	mean	s.d.
MER 4 Time 1	2.9	.53	3.3	1.66
MER 4 Time 2	3.1	.46	3.9	1.79
MER 6 Time 1	3.1	.69	3.5	1.68
MER 6 Time 2	3.5	.63	4.1	1.76

Figure 7 below breaks out the MER 4 Time 1 and Time 2 profiles separately for Groups 1 and 2 and Figure 8, the MER 6 profiles. The two figures show the jagged developmental profile for both groups within these subsidiary domains of the MER.

We take these findings to suggest that in MER 4 "Role of Peers", nearly 20% of the overall sample use dualistic thinking, nearly three quarters of the sample (72%) use multiplistic thinking, and 10%, relativistic thinking. The predominance of multiplicity in this domain means that students are likely to find peer opinions interesting because they raise new ideas and because they help students better understand themselves as distinct from others. Dualistic thinkers in this domain tend to be wary of the value of peer perspectives and rely on instructors' authority, whereas relativistic thinkers value diverse perspectives as providing new perspectives on others.

By the end of the course, the MER 4 "Role of Peers" mean for dualistic thinking reduces by almost three-quarters (down to 6% in Group 1, disappears from Group 2); the multiplistic thinking across

groups stays about the same at 73%; but the overall relativistic thinking increases to 24%. Scrutiny of the Time 2 MER 4 scores for both groups, as shown below in Figure 7, shows greater movement from dualistic to multiplistic thinking for Group 1 and from multiplistic to relativistic thinking for Group 2. Dualistic thinking disappears in Group 2, where, we will recall, there are no first year students. These findings will be interpreted later in this paper.

Group 1 and 2 Compared: MER 4

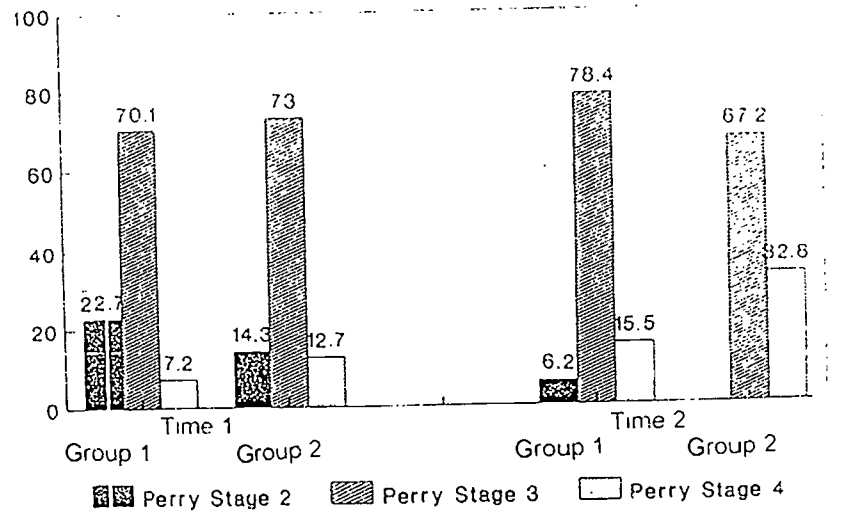


figure 7

Similarly, in MER 6 "Nature of Knowledge", the Time 1 mean for dualistic thinking across groups is 18%; for multiplistic thinking across groups, 53%, just over half of the course population and lower than for MER 4; for relativistic thinking across groups, 29% and thus twice the Time 1 proportion of relativistic thinkers in the MER 4 domain "Role of Peers." Dualism in this domain involves certainty that truth can be known; multiplicity involves comfort with two distinct categories of knowledge: one "knowable" for which differences of opinion are thought to involve error or misinformation, the other "unknowable" (as yet) but which can be known someday; and relativism involves the discovery of uncertainty, with an interest in differing opinions or interpretations and an effort to remain open-minded while thinking things out for oneself, although without clear criteria for decisions.

By the end of the semester, the MER 6 "Nature of Knowledge" mean for dualistic thinking across groups has reduced to 5% and is present in Group 1 only, where it has again (as with the MER 4 end-of-semester profile) reduced by almost three-quarters; the multiplistic thinking across groups has reduced to 46%; but the relativistic thinking across groups has increased to 50% and contextual (Stage 5) thinking has emerged in both groups with an overall sample mean of 2%. Scrutiny of the Time 2 MER 6 scores for both groups shows greater movement from dualistic and multiplistic to relativistic thinking for Group 1, and from multiplistic to relativistic thinking for Group 2. Dualistic thinking once again disappears in Group 2. Contextual thinking surfaces by the end of the course in MER 6 "Nature of Knowledge," but is washed out of the MER total protocol ratings

(Figure 5 above) by its absence in the other five MER subsidiary domains. Figure 8 shows the Time 1 and 2 developmental movement within stage and within group.

Groups 1 and 2 Compared: MER 6

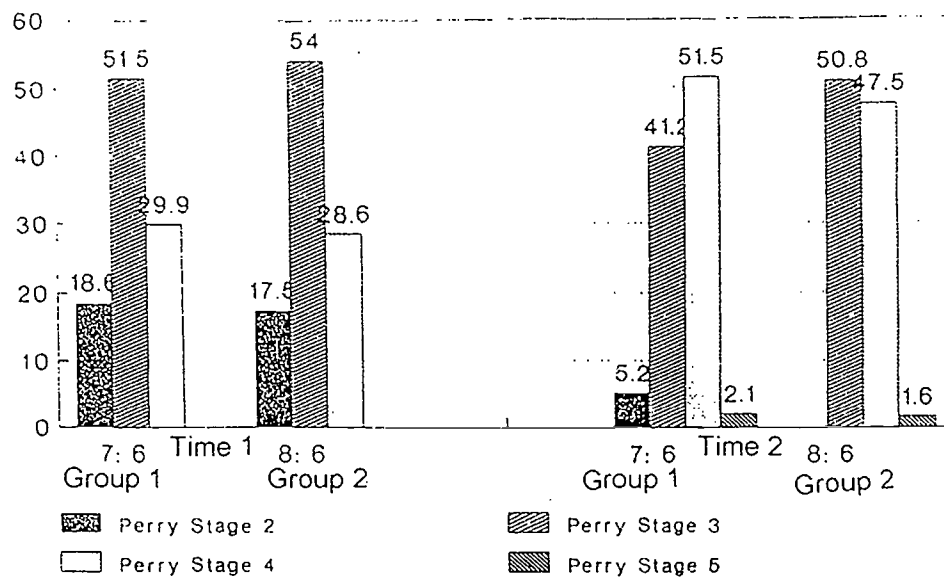


figure 8

Although the primary purpose of this research was to establish Time 1 and Time 2 cognitive developmental profiles in the domains of epistemology and moral judgment for students engaged in the social diversity course, the repeated measure design enables us to assess the significance of course effects with a univariate approach using t-tests after adjusting for pre-existing differences. Given our working hypothesis that social justice education is likely to generate cognitive and sociomoral challenges sufficient to stimulate measureable developmental movement, we raise two additional questions:

(2) Effect of the Course. Does the credited semester-long course on Social Diversity have a statistically significant effect on the epistemological and moral development of students who enroll?

(3) Effects of Age, College Class and Gender. Do the demographic background factors of age, college class and gender contribute significantly to epistemological and moral development?

Course effects are analyzed using t-tests; age, college class and gender effects are analyzed with a univariate approach using analysis of variance (ANOVA). In each case we also check for significant pre-existing differences between Groups 1 and 2. We find none in the MER total protocol ratings or DIT "P" scores, but do find significant pre-existing differences in the subsidiary domains of MER 4 "Role of Peers" ($F=257.94$, $p<.001$) and MER 6 "Nature of Knowledge" ($F=250.58$, $p<.001$).

There are statistically significant course effects for the Measure of Epistemological Reflection (MER) total protocol rating ($t=5.66$, $p<.001$), for MER subsidiary domain 4 "Role of Peers" ($t=5.49$, $p<.001$) and domain 6 "Nature of Knowledge" ($t=6.89$, $p<.001$) and for the Defining Issues Test "Principled-thinking" score ($t=3.79$, $p<.001$).

In addressing the variables of age, college class and gender effects using ANOVA, we find that age is not significant for any measure in the overall sample. Gender and course effects appear at the less stringent level of $p<.05$: the MER total protocol rating ($F=7.57$, $p<.05$), MER 4 "Role of Peers" ($F=4.35$, $p<.05$) and MER 6 "Nature of Knowledge" ($F=5.89$, $p<.05$), and significant college class effects, for MER 6 "Nature of Knowledge" ($F=3.77$, $p<.05$). MER scores by gender are laid out in Table 3 below; MER scores by college class

are laid out in Table 4 below.

Table 3: MER SCORES BY GENDER: Times 1 and 2

		Female	Male
TPR	Time 1	3.2 sd=1.4	3.0 sd=1.0
	Time 2	3.4 sd=1.3	3.5 sd=1.6
MER 4	Time 1	3.1 sd=1.3	3.0 sd=.99
	Time 2	3.4 sd=1.2	3.5 sd=1.4
MER 6	Time 1	3.4 sd=1.3	3.1 sd=1.1
	Time 2	3.7 sd=1.2	3.8 sd=1.4

Table 4: MER SCORES BY COLLEGE CLASS: Times 1 and 2

		2nd sem	2nd Year	3rd Year	4th Year
MER TPR	Time 1	2.8 sd=.3	3.0 sd=1.0	3.5 sd=1.9	3.0 sd=.4
	Time 2	3.1 sd=.3	3.2 sd=1.0	3.8 sd=2.0	3.4 sd=1.2
MER 4	Time 1	3.1 sd=.5	3.1 sd=1.0	3.4 sd=1.7	2.9 sd=.6
	Time 2	3.2 sd=.4	3.2 sd=.9	3.7 sd=1.8	3.4 sd=1.1
MER 6	Time 1	3.2 sd=.6	3.2 sd=1.0	3.6 sd=1.7	3.1 sd=.7
	Time 2	3.5 sd=.5	3.5 sd=1.0	4.0 sd=1.7	3.9 sd=1.0

These findings confirm the developmental range and pre-post developmental profiles found in an earlier study of a larger sample (Adams and Zhou, 1990). An earlier unpublished study of first

semester students found an MER mean of 2.6 (sd=.5) and a DIT "P" score of 33.34 (sd=13.6), both indicating a lower developmental profile for first semester students (Adams, 1989). Other cross-sectional and longitudinal studies show similar developmental profiles and positive direction of change during the four years of college, whether using the MER (Baxter Magolda, 1983, 1988, 1990, 1992) or other Perry-based measures (Taylor, 1990; Mentkowski, 1983; Benack, 1984; Knefelkamp, 1974). The new finding in this research is the statistical demonstration of significance course effects on cognitive and sociomoral development in a social diversity course. We also note the context-specific developmental spurt suggested by the statistical findings and the raw Time 2 gain scores (Fischer, 1984, 1983).

Application of Research Findings: Theory to Practice

1. Epistemology

When we first offered the Social Diversity course, we discovered that dualistic thought as a dominant mode of thinking in our classes appeared to work against the multiple course issues, goals and perspectives. Dualistic thinking and Received Knowing, especially in the "Role of Peers" and especially for first semester students, seemed to limit the readiness of students to listen, respond and learn from each other's divergent experiences and viewpoints. Clinchy notes how fiercely Received Knowers cling to their values and "affirm their own ways of being," a "resistance to change" that "prevents the exploration of divergent realities" (1993, pp. 181-182). Thus, the late dualistic initial profile of this course population and the findings of positive movement from a late dualistic to a multiplicitic

and early relativistic epistemology within the fourteen-week semester appear to confirm our match of this fairly demanding multi-issue course to the thinking modes characteristic of second and third year students (Baxter Magolda, 1992; Mentkowski et al, 1983). We discourage first semester students from taking this course as it is currently designed in their first semester; we moderate in any one three-hour class session the sources of complexity or contradiction; we emphasize one issue, one perspective or one theoretical construct at a time, gradually building multiple perspectives and conceptual overlays as a semester-long enterprise (Adams and Marchesani, 1992).

The findings also confirm our use of active, concrete, experiential activities drawing on multiple perspectives as well as our use of various knowledge sources (books, films, peers, memories and observations) to explore and understand these perspectives. The presence of some dualistic and many early multiplistic thinkers in our classes reminds us, however, to start with the concrete, personal and experiential as the basis for abstract knowledge course goals, always to process the sources of contradiction and conceptual confusion, especially at the level of theory, and to provide explicit course structure and support for the inevitable student-generated dissonance and contradiction. This emphasis upon active, concrete, experiential rather than passive or abstract teaching strategies is suggested for students in early multiplicity elsewhere in the cognitive developmental literature (Baxter Magolda, 1992; Knofelkamp, 1974).

The existence of dualistic thought among some students (and its virtual disappearance by the end of the semester) reminds us to make explicit use of our authority as college teachers to endorse new

modes of thinking. For example, our instructors make inroads on right-wrong dichotomous thinking by having students in their homework devise open-ended questions for class discussion for which there are no right answers. Instructors use their authority to model respect and appreciation for peer perspectives as a valid source of knowledge about social diversity. The higher MER 4 "Role of Peers" Time 1 and Time 2 scores also endorses an interactive learning environment through in-class dialogue, goal-directed small group discussions, focus groups and peer panels as well as out-of-class peer interviews, group assignments and campus observations.

We noted earlier the higher Group 2 component scores for MER 4 "Role of Peers" and MER 6 "Nature of Knowledge" and higher moral judgment gain scores (Figures 7 and 8). Apart from the possibility that resident assistants (Group 2) have by preference and training been led to respect their peers as a valid source of knowledge, we believe we can learn something from the inclination of Group 2 students to insist upon a weekly course "check in" during which they discuss residence hall situations and ask for problem-solving help from their peers. Despite similarities in instructional design for all sections of the social diversity course, the resident assistants of Group 2 rely on peer dialogue for problem-solving and take to active learning more spontaneously than students in the open sections. The Group 2 results for "Role of Peers" encourage us to try to do more to encourage greater peer problem-solving in all sections, especially in areas of complex social problem-solving and dialogue among conflicting points of view (Kohlberg and Higgins, 1989). Recent writing from a cognitive developmental perspective has emphasized,

although primarily with reference to children, the value of peer-learning in a sociocultural approach to development (Bidell and Fischer, 1992; Wertsch and Kanner, 1992; Damon, 1990).

2. Moral Judgment

Among the early influences on our instructional design was the peer dialogue and debate of the Just Community approach (Kohlberg and Higgins, 1987; Higgins, 1989), in which students struggle to discover and agree upon fair and equitable solutions to real world dilemmas in the context of an instructor's modelling a slightly more complex or adequate moral response. Our findings from the Defining Issues Test, especially the gain scores over a 14 week period, encourage us to continue to pose (or invite students to pose) and discuss real-world dilemmas in the domain of social diversity and social justice. We have also developed a social issues inventory that invites students to write up examples of social diversity or social justice conflicts based upon their own recent experiences, to review the perspectives of all participants in the conflict (including their own), to discuss these perspectives among peers in class and generate one or more desirable outcomes. We discuss and role-play various possible outcomes to these conflicts and ask what students would need in the way of support to enact new behaviors.

It is of interest, in this regard, that the resident assistants (Group 2) show twice the gain scores of other students, a difference that may be linked to the sociomoral problem-solving that goes on in their daily experience outside of class with role-related issues of social diversity. As peer helpers, they are expected to problem-solve a range of ethical dilemmas in the residence halls, for

which class is perceived to be merely a rehearsal and support. This finding encourages us to emphasize similar aspects of peer interaction for the sections open to all students and to more actively engage those students who feel willing and ready in the real life multicultural conflicts of campus and the residence halls.

Next Steps

Our goal in this study has not been to demonstrate developmental or attitudinal change for its own sake, but to try to delineate the developmental characteristics, skills and change processes for students engaged with the challenging and relatively new social diversity and social justice college curricula. Our data suggest some of the baseline sociomoral developmental starting points for our students as well as the direction and magnitude of change over the semester. We acknowledge that the measures used in this study are derived from global cognitive developmental theories and that the recent cognitive developmental literature emphasizes variability across developmental domain (Bidell and Fischer, 1992) and the designation of specific developmental skills evoked by specific learning contexts (Kitchener and Fischer, 1990; Okagaki and Sternberg, 1990). We are convinced by our experience of student uncertainty and struggle upon entering the course and student reports of growth, empathy and transformed perspectives upon leaving it, that our understanding of the specific kinds of developmental change that take place must be more closely tied to the course context, to better support the design of course curriculum and process (Bidell and Meyer Lee, 1993; Tatum, 1992; Taylor, 1990). The challenges experienced by the students are intrinsically tied to the social diversity and social

justice subject matter and developmental change needs to be assessed within specific course interactions.

At the same time, the global developmental course profiles and course effects shown in this study continue to help us revise our curriculum, refine our teaching approaches, and help to prepare our graduate teaching assistants, some of whom are already familiar with cognitive development concepts and most of whom study and apply theories of social identity development.

Several "next steps" are indicated. First, the evidence on our campus that most interracial conflicts involve first semester students or their weekend visitors from nearby communities (Hunt et al, 1992) suggests the pressing importance of designing effective, developmentally appropriate social diversity courses for first semester students. Such courses would take into account student thinking characterized by Dualism and early Multiplicity (Perry positions 1 and 2) and Received Knowing. Second, we continue to consider how our own development as teachers and facilitators can be helped by understanding "where" our students might be as they continue to challenge and surprise us. If we consider the distance between where students are and where they can, with challenge and support, move, we can better discover the appropriate "scaffolding" for new levels of cognitive, affective and behavioral growth. Informed by an awareness of the gap between present and potential levels of awareness, we can make more effective use of the sociocultural environment of the college classroom, within which we believe new multicultural concepts, attitudes and behaviors can safely and with support be considered, experienced and tried out. Third and finally,

we will collect as a next step in this research project, a series of "snapshots" or vignettes of epistemological, moral and social identity positions and movement for students engaged in social diversity education, following the models of Baxter-Magolda (1992), Belenky et al (1986), and Clinchy (1993) in the epistemological domain and Tatum (1992) for racial identity development. If we can generate snapshots and examples of student's sociomoral development that speak clearly and explicitly to social diversity and social justice educational processes, we will be better prepared to answer the call in "One Third of a Nation" (ACE, 1988) for colleges and universities to create social laboratories in which educational approaches to social diversity and social justice may be discovered, evaluated and carried forward.

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"THE SOCIOMORAL DEVELOPMENT OF UNDERGRADUATES
IN A 'SOCIAL DIVERSITY' COURSE:
DEVELOPMENTAL THEORY, RESEARCH AND INSTRUCTIONAL APPLICATIONS
By Maurianne Adams and Yu-hui Zhou-McGovern

SUMMARY

This cognitive and sociomoral developmental study of 165 college students enrolled in a general education "diversity core" undergraduate course on social diversity and social justice in Spring 1990 at a large Northeastern public research university, considers the application of cognitive developmental theory to social justice education. It presents and statistically analyzes repeated measure test results from two assessment instruments: Baxter-Magolda's Measure of Epistemological Reflection (MER), a Perry measure for cognitive development and Rest's Defining Issues Test (DIT), a moral judgment measure adapted from Kohlberg. The college student sample includes two sub-groups: 97 students who enroll in open sections and 68 resident assistants who take the course as part of their inservice training. The paper describes each instrument, reports the findings of a positive direction of change on all measures all students in the sample, and statistically analyses between-group differences, course effects, gender effects and ethnic/cultural differences. Specific questions addressed by this initial study include

(1) Descriptive Statistics: What are the demographic, developmental and attitudinal characteristics of students who enroll in this Social Diversity course? (2) Effect of the Course: Does the credited semester-long course on Social Diversity have a statistically significant effect on the epistemological and moral development of students who enroll and/or on changes in their social attitudes and learning style orientations? (3) Effects of Age, College Class, and Gender: If effects attributed to the course are found, are these effects the same if the demographic variables of age, college class, and gender are considered in relation to the developmental variables?

Significant course effects ($p < .001$) were found for MER overall and component scores and for the DIT. Age was not found to be significant. Gender effects ($p < .05$) were found for the MER overall and component scores; college class effects were found for one MER component score. Descriptive statistics are interpreted in light of the aspects of challenge and support considered characteristic of social diversity and social justice education. Course goals and teaching/learning dynamics are considered in light of the cognitive and sociomoral developmental findings.