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Transformative Higher Education

A Meaningful Degree of Understanding

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College mission statements often describe learning that is intended to transform students and communities. This study revealed that 35% of participating college students reported experiencing transformative learning as a result of critical reflection on disorienting college experiences. This study explores curricular and pedagogical interventions designed to move critical reflection and perspective transformation from the periphery of higher education curriculum into a central framework for teaching, as an act of intentionality and decision making. These interventions require substantial curriculum and assessment rethinking and redesign from faculty in teacher education programs—as well as faculty of all disciplines—in order for higher education students to earn a meaningful degree of understanding.

Keywords: critical pedagogy; critical reflection; perspective transformation; transformative learning; assessment; institutional mission

Wealth of Resources, Poverty of Understanding

Living in America today is simultaneously a rich and impoverishing experience. Despite its wealth of information and resources, American society suffers from a poverty of understanding.

The United States is economically the wealthiest nation on earth (Seidel, 2003). Yet it invests very little in developing human potential. American society arguably spends more effort pursuing cultural capital than developing human capital. Pursuing cultural capital means saying, doing, and possessing the things dictated to be right by mainstream commerce, media, politics, and educational institutions. Developing human capital, in contrast, means dedicating words, energy, and resources to supporting the possibilities each individual possesses. Critical discourse on the merits and roles of cultural capital and human capital is marginalized in American society (Apple, 1995). Worse still, critically reflective discourse is largely absent within American institutions such as commerce, media, politics, and education.

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Not Growing Convincingly Wiser

As college degrees have become essential cultural capital for mainstream societal ascendancy, institutions of higher education have proliferated. *The Chronicle of Higher Education* identified more than 4,000 colleges in the United States, constituting an average of more than 80 colleges per state (Nation: College Enrollment Trends, 2002). And outside of colleges, information access has similarly proliferated. According to Wurman (1989), “a weekday edition of the *New York Times* contains more information than the average person was likely to come across in a lifetime in seventeenth-century England” (p. 32).

The dichotomy of richness of information and poverty of understanding is particularly evident in colleges and universities—the apex of formal education in American society. Before issuing academic degrees, institutions verify that students have amassed rich stocks of college credits. Whether or not college graduates understand how to critically engage complex ideas, relationships, problems, and opportunities is a more difficult proposition for institutions to assess. This is because understanding in today’s postmodern world requires not only knowledge and comprehension but also what Wiggins and McTighe (1998) called perspective, empathy, and self-knowledge—which require learners to analyze information from a variety of perspectives, explain other people’s experiences, and act on this learning in their own lives. Yet despite all the access to higher education and information, Willimon (2002) asserted that American society is not growing convincingly wiser. There is little evidence that higher education is doing more than simply reinforcing patterns that enable students to assimilate new experiences into what Belenky and Stanton (2000, p. 71) referred to as inherited “mental maps”—conditioned frames of reference through which individuals filter ostensible learning experiences.

Literature Review

GENERATING OBEDIENT CITIZENS

Cranton and King (2003) asserted that in its simplest form, higher education today may be generating little more than obedient citizens who are prepared to work within society’s institutions, professions, and organizations. Learning that merely equips students with information and skills needed to function within society’s existing paradigms contributes to the poverty of understanding in American society. Mistaking knowledge for understanding erodes a culture’s capacity to distinguish between information and insight, between facts and fertile ideas.

Habermas (1984) described learning that equips students with information and skills as instrumental learning, as it is necessary to exist. It is oriented toward mastering tasks, solving problems, and learning how to manipulate environments and people toward specific ends.

Mezirow (2000) suggested that instrumental learning supports a society's "cultural canon, socioeconomic structures, ideologies, and beliefs about self [that] often conspire to foster conformity, and impede development of a sense of responsible agency" (p. 8). Instrumental learning does little to address the poverty of understanding in American society. When learners are reduced to replicators, they follow inherited mental maps, which may be unreliable for navigating the current dynamics of postmodern life.

Warning about the dangers of mere instrumental learning, Tillich (2000) explained that "a self which has become a matter of calculation and management has ceased to be a self. It has become a thing" (p. 124). Higher education that fails to develop learners beyond the acquisition of instrumental knowledge contributes to the poverty of American society. Individuals must be able to think and act dynamically—rather than linearly—in postmodern society.

Instrumental learning in higher education typically comes at the cost of the priceless understanding that although learners will have amassed a wealth of instrumental knowledge from earning an academic degree, the very environment that produces the degree is unlikely to confer either the understanding and experience to be truly masterful or the breadth of understanding to recognize one's own ignorance. Thus, higher education is highly effective in conferring cultural capital. It is comparatively less skilled in developing human capital.

Does higher education conspire to fool students with this situational irony? Such intentional deception seems implausible. "If there is a conspiracy here," offered Brookfield (2000), "it is a conspiracy of the normal" (p. 138). Brookfield's observation echoed Maslow's (1971) assertion that "normalcy would be rather the kind of sickness or crippling that we share with everybody else and therefore don't notice" (p. 25). If higher education contributes to such a conspiracy, it is a conspiracy of the normalized and socialized.

The instrumental curriculum that prevails in higher education is viewed by many to be a wholly natural way to learn. The opportunity to consume, compartmentalize, and regurgitate information is, in many cases, all that learners have been taught to expect from school.

SOWING SEEDS OF CONSCIENTIZATION

Higher education has the potential to sow the seeds of conscientization, understanding, insight, and transformation by fostering proactive thinking, incorporating multiple perspectives, and encouraging dialogue and construction of knowledge (Daloz, 1990). Learning of this nature has the potential to transform worldview and behavior. Transformative learning may produce significant, far-reaching, and drastic changes in the learner (Perry, 2000). Belenky and Stanton (2000) emphasized that "not only would participation and reflective dialogue support [students'] development as individuals, it could also support the development of a more inclusive, just, and democratic society" (p. 74).

The transformative educational experience may contain the power to actualize institutional mission—the search for truth and pursuit of meaning—into reality.

Institutions of higher education are uniquely positioned to facilitate transformative experiences in learners, who may, through critical examination of the norms within their environment, develop heightened consciousness of their conditions. Actualizing higher education's mission objectives is a powerful counterhegemonic response to the poverty of understanding in American society.

LEARNING CYCLES AND TRANSFORMATION

Mezirow (2000) characterized the transformative learning experience as having 10 phases, and Herbers (1998) condensed Mezirow's 10 phases of perspective transformation into (a) disorienting dilemmas, (b) critical reflection, (c) rational dialogue, and (d) action. Herbers's distillation of Mezirow's 10 phases clarified the foundational components of transformative learning. These foundational components are akin to Kolb's (1984) experiential learning cycle, which consists of cycles of concrete experiences, reflection, abstract conceptualization, and active experimentation. Here, Mezirow, Herbers, and Kolb seemed to be addressing similar processes of experience, critical reflection, dialogue, and renewed action—which is informed, reformed, tempered, and redirected by experience and expanding awareness.

Method

This study featured concurrent triangulation of quantitative and qualitative methods through a field-tested survey of transformative experiences followed by in-depth, phenomenological interviews with selected participants. The following discussion focuses on the survey results. The phenomenological and triangulated research findings will inform a forthcoming synthesized theory of transformative action and assessment, based on the work of Bloom (1976), Brookfield (2000), Habermas (1984), Herbers (1998), Kegan (2000), Kolb (1984), Maslow (1971), Mezirow (2000), and Wiggins and McTighe (1998).

RESEARCH QUESTIONS

E. Taylor (2000), in his exhaustive review of transformative learning research, noted that few quantitative studies of transformative learning experiences exist. This study sought to address that opportunity in its search for answers to the following research questions.

1. To what extent are teacher education students experiencing transformative learning?
2. How do transformative learning experiences affect teacher education students' present behavior?

SURVEY DESIGN

The purpose of this survey was consistent with Creswell's (2003) recommendation to "generalize from a sample population so that inferences can be made

about some characteristic, attitude, or behavior of this population” (p. 154). This study aimed to assess, describe, and infer about the transformative experiences of the sample population of students enrolled in teacher education programs. This survey was cross-sectional, with data being collected at one point in time rather than longitudinally. As this survey was a self-administered questionnaire, volunteers at each research site administered it.

PARTICIPANTS

The study population consisted of 153 teacher education students in their final year at neighboring institutions of teacher education. One institution was a 10,000-student land grant university. The other was a 3,000-student private college. These populations were chosen to study learners in uniquely different institutional settings. The quantitative component of this mixed-method study did not involve stratification of the population before selecting the sample. This study’s quantitative design allowed for data collection from the largest sample size available at these institutions, as Gall, Gall, and Borg (2003) noted is the general rule in quantitative research. As a result of the support of participating institutions and student participants, this study received a 100% response rate, with 153 surveys administered and 153 surveys completed.

INSTRUMENTATION

Informed by King’s (1997) quantitative research on transformative learning experiences among adult learners in higher education, this study sought to add to the emerging quantitative analysis of transformative learning experiences. Having developed her study in consultation with transformative learning scholars Brookfield, Mezirow, E. Taylor, K. Taylor, and Shaw, King was kind to allow her literature-based survey instrument to be modified based on the work of Herbers (1998) and Daloz (1990), then piloted with a group of preservice teachers and used in this study.

In this modified survey, participants who indicated that they had college experiences that (a) lead them to question their actions, assumptions, beliefs, or behaviors; (b) produced a realization that they no longer agreed with their previous beliefs or expectations; (c) required reconceptualization of behavior; and (d) produced behavior change were identified as experiencing transformative learning.

This survey, modified from King’s (1997) instrument, featured 16 questions. Three questions inquired about experiencing disorienting dilemmas while enrolled in an institution of higher education. Four questions gathered information about students challenging existing assumptions and perspectives. Two questions sought responses about behavior change based on critical reflection on assumptions and perspectives. Seven questions gathered participant demographic data including sex, marital status, ethnicity, area of teacher licensure, prior education, semesters enrolled, and age. Survey questions featured nonexclusive variable design so that participants were able to select more than one response for each question.

Findings

SEARCH FOR TRUTH AND PURSUIT OF MEANING

More than one third of the college students who participated in this study appeared to have experienced transformative learning in the classroom, in campus life, in residential living, or in field experiences. These students identified disorienting dilemmas, critical reflection, rational dialogue, and taking better-informed action as the benchmarks of their perspective transformation. Transformative learning experiences prepared participants for present realities and future surprises to effectively engage the future's unknowns (Maslow, 1971). More than one third of the participants experienced actualization of their colleges' mission statements—the search for truth and pursuit of meaning.

Nearly two thirds, however, had not yet experienced the transformative power of higher education. This is illustrated in Figure 1, which presents quantitative findings among the four major quadrants of experiences associated with transformative learning.

Quadrant I represents the first major stage in perspective transformation. Nearly three fourths of this study's 153 participants reported disorienting experiences, in which their attitudes, values, beliefs, feelings, concepts, or actions were an insufficient match for a new reality. Typically encountered in coursework, interaction with peers outside of the classroom, and cross-cultural field experiences, these disorienting college experiences may be the beginning of future perspective transformation. Examples of disorientation include the following statements by two college seniors: (a) "Do I think this? Do I think that? What do I do now?" and (b) "Man, my marbles were rolling around."

Through the process of disorientation, nearly three fourths of the participants were well positioned to proceed to critical reflection, the next major stage toward transformative learning.

Forty-three percent of all participants reported engaging in critical reflection on assumptions and actions, represented by Quadrant II. Students expressed their critical reflection in statements such as the following: (a) "The question *Why?* became central in my mind." and (b) "I realized there were other options than those that I had grown accustomed to choosing."

The surprisingly small 43% of students who engaged in critical reflection may be one of the greatest threats and opportunities in the entire cycle. Because critical reflection involves analysis of the gap between ideals and experience, this process enables individuals to make sense of disorientation by reevaluating attitudes, values, beliefs, feelings, concepts, and actions. As critical reflection is an essential component of rational dialogue, and rational dialogue is an essential component of perspective transformation, only 43% of participants critically thinking about a disorienting dilemma means it is unlikely that more than this number will experience the challenges and rewards of Quadrants III and IV—rational dialogue and action. Moreover, it would seem that the absence of critical reflection may lead to a reduced likelihood of future transformation unless something changes or an intervention is made.

Transformative Learning Quadrants

Mezirow (1970) and Herbers (1998)

N=153

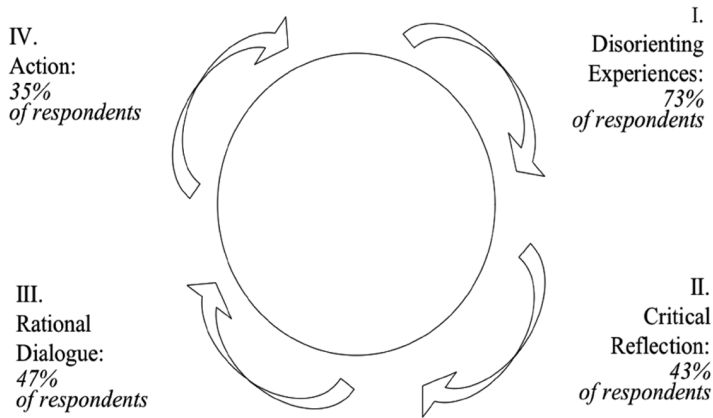


Figure 1: Quadrants of Transformative Learning

As indicated in Quadrant III of Figure 1, 47% of participants reported engaging in rational dialogue regarding the disorienting dilemmas they encountered in college. Examples of rational dialogue include the following statements by students: (a) “I’d listen, read, discuss, listen some more, and read more to expand my understanding,” and (b) “Now I go to be taught by those experiences which once confused me.”

Whereas it is encouraging to find nearly half of all participants engaged in rational dialogue, the question that arises is, “Rational dialogue regarding what?” When learners are discussing and reconceptualizing their assumptions and actions, it would be of greatest benefit for them to do so from a basis of broad, yet deep, critical reflection. Perhaps learners are simply reconstructing new frames of reference with many of the same assumptions and actions with which less-useful structures were founded. Affording opportunities for observation and critical reflection would support the development of valuable new structures of thought and action.

Quadrant IV, with which 35% of participants identified, represents perspective transformation—or behavior change based on what Daloz (1990) called proactive thinking, incorporating multiple perspectives, dialogue, and construction of knowledge. Examples of this are heard in the following student statements: (a) “I’ve opened up my thinking and behavior to include ideas that used to intimidate me,” and (b) “I now try to practice the same sort of empathetic listening with my students and peers.”

Discussion

FROM DISORIENTATION TOWARD CRITICAL REFLECTION

Much of present day education includes such an intense schedule of curriculum coverage that critically reflective learning becomes a notion honored in theory but overlooked in daily practice. It is not uncommon for teachers and students alike to dedicate a great deal of learning time and energy to instrumental learning—which is focused on skill acquisition (Habermas, 1984).

Clearly, effective professionalism in postmodern life demands substantial instrumental skills. The complexity of learning to become a competent professional—especially in undergraduate programs that compress education requirements into a handful of years—is such that undergraduate education can become undergraduate training. Because assessment of learning often revolves around the question of how to be an effective professional, critical reflection on the why or to what ends of education remains a peripheral consideration. College students are frequently taught how to be instrumentally effective at the cost of expansive learning experiences with what Habermas (1984) called the communicative and emancipatory dimensions of learning, which require learners to engage and grapple with questions of norms, power, and legitimacy.

Over time, students who have been trained primarily in instrumental learning become professionals disposed to focus primarily on task-oriented behavior and to avoid or discount inquiry into the communicative and emancipatory dimensions of learning. Such dispositions perpetuate hegemony and impede transformation. This is evident in the following statements by individuals among the 27% of participants who indicated they did not experience disorienting dilemmas, critical reflection, rational dialogue, or transformed behavior in college: (a) “I do not spend time thinking about other people’s assumptions. If they are about me, they should approach me,” and (b) “I realize that it doesn’t matter what others think. We must focus on what we want.”

The effect of the disposition toward instrumental learning and away from communicative and emancipatory learning shows itself in the surprisingly small 43% of participants who reported critically reflecting on disorienting college experiences. It is also evident in the 27% of all participants who did not identify with any of the 10 phases of Mezirow’s transformative learning theory, which are for the purposes of this discussion represented in Herbers’s four stages or quadrants of transformative learning (see Figure 1).

Instrumental learning is, according to K. Taylor (2000), “insufficient to the task” (p. 157) of fostering critically aware decision making and self-authoring in a complex, postmodern world. Fostering transformation requires higher education faculty to rethink, reform, and redesign their curriculum so that valuable instrumental learning exists within a framework of communicative and emancipatory critical reflection—or critical assessment of assumptions supporting the justification of existing norms, contexts, history, social structures, and power structures that shape epistemological perspectives. Cranton (1994) suggests that faculty who do so

choose the role of the “provocateur” to “challenge, stimulate, and provoke critical thinking” (p. 128). An example of this in the field of teacher education is Pelaez’s (2005) Biology 102 course for preservice elementary educators, in which learning is assessed through critical reflection of biological phenomena using a scientific approach and applying knowledge in evaluating social issues and scientific problems that have a social dimension.

Pelaez’s (2005) approach to assessing critical reflection is grounded in Wiggins and McTighe’s (1998) six facets of understanding, which are an assessment framework associated with the understanding by design model of curriculum planning. The understanding by design model assists educators in (a) identifying the enduring understandings that students will demonstrate as a result of the learning experience, (b) identifying a combination of critically reflective and instrumental assessment methods for measuring student learning, and (c) planning learning experiences designed to accomplish the desired critically reflective enduring understandings. The six facets of understanding assess explanation, interpretation, application, perspective, empathy, and self-knowledge. Like Bloom’s (1976) taxonomy, the six facets of understanding are tools for supporting sophisticated levels of critical thinking.

Within Bloom’s (1976) cognitive taxonomy, instrumental knowledge and comprehension are foundationally important for critically reflective application, analysis, synthesis, and evaluation. Like Wiggins and McTighe’s six facets of understanding, Bloom’s cognitive taxonomy may serve as a planning and assessment framework for educators to structure the study and assessment of student movement from uncritical acceptance to insightful evaluation of information—to construct understandings of broad foundations of perspectives.

Wiggins and McTighe’s (1998) and Bloom’s (1976) curricular frameworks for developing critical reflection in college students reflect Perry’s (1970) recommendations for supporting students in becoming more complex and dynamic thinkers. Perry’s recommendations include (a) challenging dualists to compare, contrast, and justify ideas; (b) challenging multiplists to reconsider positions based on changing evidence; and (c) challenging relativists to intellectually reason the consequences of various choices.

Another intervention that may support and foster critical reflection among college students is critical reflection on their own dispositions as learners. Although assessment of learner dispositions is commonly present in teacher education programs, little is known about supporting students in critically assessing their own dispositions as learners. Use of a descriptive instrument for preassessment, formative assessment, and summative assessment is one approach to measuring the dispositions programs value; this type of intervention would also help learners develop the communicative abilities they need to succeed in dynamic educational environments.

These curricular and pedagogical interventions move critical reflection from the periphery of daily classroom learning into a central framework for teaching as an act of intentionality and decision making. These interventions require a good deal of curriculum and assessment rethinking and redesign from faculty in teacher education programs—as well as faculty of all disciplines. Because institutional demands on faculty inhibit extensive critical reflection, it would not be

surprising if these interventions were met with significant reluctance. However, investing in these and other theory- and practice-based pedagogical and curricular interventions may support teacher education students in becoming more critically reflective about the disorienting dilemmas that are likely to mark their professional lives as educators in postmodern society and their personal lives as citizens in a postmodern world.

Although any of these changes or interventions may be successful in fostering further critical awareness, combining these approaches may be most effective in developing a meaningful degree of understanding within students of higher education. The costs of failing to intervene are significant for a postmodern world in which education is abundant and transformative understanding is unnecessarily in short supply.

DIRECTIONS FOR FUTURE RESEARCH

Daloz (2000) and Kegan (2000) have noted that students are able to critically reflect on their own perspectives in late adolescence and abstractly reason about their own assumptions after two decades of living. The contemporary college experience, however, may be so inundated with learning experiences that students have not yet fully realized the effects of these events. For this reason, recognizing and being able to articulate the experience of perspective transformation may require more time than is provided in a study such as this, which surveys students in their last semester of college.

As an alternative to this exit survey and interview approach, a postgraduation assessment of transformative learning experiences may enable increased awareness of the extent to which transformative learning experiences were present in college. To this end, one consideration is the possibility of a longitudinal study of college graduates. This may enable participants to more fully realize the intellectual growth potential of their college experience.

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