

# **A WELL-ROUNDED EDUCATION for A FLAT WORLD**

**A Paper Prepared by the College Outcomes Project**

**Funded by the S. Engelhard Center**

**Richard H. Hersh, Chair**

**Matt Bundick**

**Richard Keeling**

**Corey Keyes**

**Amy Kurpius**

**Richard Shavelson**

**Daniel Silverman**

**Lynn Swaner**

# **DRAFT**

## **Acknowledgments and History of the College Outcomes Project**

The College Outcomes Project is an extension of the Bringing Theory to Practice project (BTP), directed by Don Harward, President Emeritus, Bates College. Begun five years ago with support from the Charles Engelhard Foundation, BTP was initiated by Engelhard trustee Sally Pingree, who's extensive work with higher education alarm her regarding how many college students were disengaged, often manifested by depression, alcohol and other drug abuse, anorexia, bulimia, physical violence, and dropping out. The BTP project's focus has been and continues to be how best to positively engage students in their academic, campus, and larger community's lives and involves hundreds of campuses trying new curricular, teaching, and civic engagement activities.

As BTP progressed, it became clear that larger institutional changes were needed beyond small, isolated projects but it became equally clear that a more robust definition of liberal education and how such outcomes might be assessed were needed as well. Hence the genesis of the College Outcomes Project, supported by the Charles Engelhard and Spencer Foundations, the intent of which is to more clearly define the notion of a "liberating" education, to offer strategies on how best to tackle the issue of assessing such learning, and to provide a conceptual schema for institutional change to facilitate such learning.

In this endeavor we wish to acknowledge the leadership, vision, and support Sally and Don have provided. Without their tireless efforts on behalf of college students everywhere, this project would not have been possible.

## Summary

With today's global competition, there is increasing concern about the nature and quality of higher education. One set of concerns focuses on higher education's purpose – should it be practical and graduate well equipped students to supply a competitive workforce? Or, should it rather explore what some critics label “romantic” notions of a liberal education with broad ideas and values to prepare students for democratic citizenship? A second set of concerns focuses on the escalating problem of student well-being. Campuses across the nation are seeing an increase in drug and alcohol use, depression, and psychological distress, all of which are closely linked to students' ever more precarious identity development. We argue that these issues are not mutually exclusive. For students to be successful in today's global economy, higher education must recognize and emphasize that practical and liberal education are tightly coupled, and that students' academic, developmental, interpersonal and experiential lives are entwined. Colleges must move from traditional education to what we term transformational learning.

Transformational learning means that the “whole student” has to develop so as to: prepare him- or her as a thinker and citizen for a challenging world; question and affirm or change what she or he believes; and come to a greater understanding of the complex questions of his or her own life and the lives of others than they otherwise would. Transformational learning outcomes fall into two closely related broad categories: (a) cognitive outcomes including knowledge and reasoning with disciplinary content and broad, cross-disciplinary abilities of analytic reasoning, critical thinking, problem solving and communicating; and (b) efficacy outcomes including psychosocial, affective, and interpersonal competencies. The two categories of outcomes are inextricably connected, we believe, and by attending to both leads to transformational learning and the development of the whole person into a flourishing individual and citizen.

The first category of outcomes has received extensive attention, study, and measurement in higher education (e.g., the Collegiate Learning Assessment) and remains a universally agreed upon fundamental purpose of higher education. And while we do not take that purpose for granted, the College Outcomes Project has intentionally focused on the second category in order to do greater justice to the discussion of liberal education outcomes for the 21<sup>st</sup> century. Specifically, the Project has identified four student outcomes and is working on a set of measurements and indicators for them: perspective-taking, identity, emotional competence, and resiliency (PIER). We further believe that these outcomes of transformational learning support the experience of optimal emotional, psychological and social functioning and a life- long process of positive development that is well-represented by a formal construct our colleague Corey

Keyes calls *flourishing* (Keyes. 2002). Transformational education and flourishing have profound implications for the fuller integration of students' academic experience with opportunities for emotional and interpersonal development, social and civic engagement.

This paper provides the conceptual underpinnings of the project and efficacy outcomes while briefly sketching work on measurements and indicators. A subsequent paper focuses on the measurement and indicators in detail.

### **Introduction: Higher Education Challenged**

Americans hold what appear to be conflicting aspirational and practical notions of the purposes and value of a college education. The aspirational notion is that going to college is about liberating oneself from the shackles of narrow experience, unexamined ideas and values, and egocentric perspective. In this sense, going to college is a privileged time to become the very best one can be, a preparation for a fulfilling life of the mind, the heart, and democratic citizenship. The practical notion is that going to college is about preparing oneself to compete in the "flat" world of unrelenting, information driven, global economic competition. Economists and corporate leaders refer to this function of higher education as development of *human capital*. In this sense, going to college is about becoming an expert, worker/professional, mastering the knowledge, skills, confidence and competence to secure meaningful employment and work productively in jobs and careers that change continuously.

Too often these dual purposes are thought to be mutually exclusive, a debate held inside and outside the academy between those espousing the primacy of a broad-gauged "liberal education" and those who believe a narrower, more specialized professional education is necessary. The former argue that the purpose of a college education is more than preparing for a job; it should be for acquiring the knowledge, skills, competencies, values, dispositions and capacities for many life roles in a world of inevitable change and that this is ultimately the more "practical" preparation for life. The latter respond, especially in these hard economic times, that this kind of liberal education is a luxury, which unnecessarily distracts time and effort from the ultimate goals of skill mastery and career advancement.

While this debate continues, colleges and universities, usually praised for creating knowledge and enabling new generations of students to succeed in work and life, now face serious criticism as parents, the larger public, policy-makers and employers question their cost, quality and value. Increasingly perceived to be a hollow, expensive, and inefficient enterprise failing to adapt to changing realities (e.g. Spellings' Commission on Higher Education), the academy is

challenged to meet the educational, economic, and social demands of the twenty-first century.

But this challenge, if it is to be met, cannot be couched in debate between the aspirational and practical because the world we live in demands recognizing that both purposes are inextricably connected. This “flat world,” the widely used metaphor created by Thomas Friedman to explain the global leveling of opportunities resulting from the ways people “plug, play, compete, connect, and collaborate with more equal power than ever before,” has clear implications for higher education.

### **The College Outcomes Project: A Well-Rounded Education for A Flat World**

Liberal arts education is exactly what we need, says Friedman, because it “is a very horizontal form of education,” connecting history, art, science, and politics. It requires all of the intellectual horsepower and deep thinking we have traditionally associated with the best of liberal education but now, with a practical bent. Practical in this sense means the ability to apply knowledge, to think “horizontally” -- connecting disparate dots between disciplines and seemingly infinite information. It also means competence in “soft skills” such as valuing and embracing diverse ideas and people, the ability to work cooperatively with others, possessing a strong rather than a large ego, and the ability to tolerate ambiguity and bounce back after setbacks. Daniel Pink points to these outcomes as right brain competence—empathy, seeing the big picture, and forging relationships rather than transactions. These he calls “high concept” and “high touch” abilities and aptitudes—the ability to detect patterns and opportunities, invent, find joy in oneself and others, and stretch to find meaning and purpose in life.

Coupled with intellectual competence and rigor, these other outcomes help “round” us out as human beings and promise a far more liberating and appropriate aspirational and practical education for the future. In short, the best 21st century education is a *liberal* education. The term “liberal,” however, has taken on a politically pejorative connotation and thus our substitution of *Well-Rounded* for the word *liberal* in the title, *A Well-Rounded Education for a Flat World*.

The College Outcomes Project, sponsored by the S. Engelhard Center, has as its goals,

- Elaboration of learning outcomes that would best reflect a successful “higher” education for the flat world of 21<sup>st</sup> century
- Identification and construction of assessment measures to support teaching for such outcomes, and

- Recommendation for institutional changes necessary to purposefully promote such learning.

We find much of current undergraduate educational practice to be problematic in terms of what is taught and how it is learned and we conclude: that college-level learning must become far more *transformational*; that educational environments become far more *integrative*; and that formative learning outcomes assessment must be aligned with summative assessment and far more explicit, systematic, and tightly linked to standards, objectives, curricula, and pedagogy.

### **The Increasingly Problematic Nature of Student Well-Being**

The larger cultural forces children and adolescents must cope with—broken and/or less present families, coarsening television and internet content, family economic distress, the paradox of electronic umbilical computer and cell-phone “connections” with the potential for producing psychological and emotional disengagement, and the “dumbing” down of K-12 education, with its lowered expectations and focus on reductionist standardized tests— are having cumulative adverse and perverse effects well before students arrive at our colleges and universities.

We observe along with others that our culture may be inadvertently producing a generation of less *resilient* students who come to college unsure of who they are, fearful in their lack of identity, and with less confidence in the future. Many are insecure and fearful of close relationships, which may offer one explanation for the increasing abuse of alcohol and other drugs we see. This diminished sense of self may also help explain an increase in psychological distress and depression, acts of racism, sexism, assault, date rape, attempted suicide, eating disorders, theft, property damage, and cheating on most campuses (Baker, Barrow, Aberson, & Draper, 2006).

Colleges and universities may not be helping these matters. Too often, students find campus cultures affirming the values and virtues of our consumer-driven marketplace. Large universities, and many smaller ones, have become the equivalent of learning malls; a physical space made up of shared parking that facilitates entry into many separate “boutiques” (i.e., departments and courses), each run by their own proprietors. Indeed, many campuses now have a “shopping period” at the beginning of the term in which students may try out courses and “return” them slightly used without penalty.

Little regard is given to how such courses are related to each other. Little if any agreement regarding common outcomes, expectations, or standards among faculty is expected. A tacit social contract between faculty and students—“We’ll expect little of you if you’ll expect little from us”—too often manifests itself in passive student ingestion and regurgitation of knowledge, inflated grades, minimal intellectual or emotional engagement with learning, and increased

student loneliness, isolation, alienation, binge drinking, depression, and dropping out.

In short, given inadequate advising and mentoring, shopping for an education is what students are expected to do and whatever is in the shopping bag by the time they leave the mall is too often left mostly up to them. The consequence of this tack is that the “whole” of undergraduate education turns out not to be the sum of its parts, with many now complaining that students are graduating (if at all) with inadequate knowledge, an inadequate ability to think critically, a disconnected sense of self, a confusion about how they as individuals are/ought to be connected to the larger world, and insufficient resilience, discipline and perseverance, not to mention the joy, needed to meet the challenges of the flat world they are entering.

### **A Response to the Challenge: Purposeful Transformational Learning**

We need a higher education system that recognizes both sides of the *human capital* equation, both the aspirational and the practical. Educators *and* business leaders claim that the global future requires people who are secure in themselves and with different others, who are able to think critically and “connect the dots” in the chaos of available information, who not only have knowledge but who also can *make meaning* of that knowledge – that is, to understand how what they learn relates not only to the specific context in which it is presented, but also how it relates to their own feelings, thoughts, identity formation, and how they interact with others and the world around them (Shivpuri & Kim, 2004). We refer to *meaning-making* throughout this paper in this manner,

In this global future, people must have the capacity to solve problems creatively, communicate well, work effectively both independently and in teams, be cross-culturally adept, and ethically responsible. They must possess the compass, fiber, grit, and resilience that enable them to face the ups and downs of modern life and they should be committed to assuming the responsibilities of local and global citizenship. Finally, they should be informed by a set of sustaining values wed to the highest standards and excellence, fired by passions which can illuminate their own lives and light up their times.

We maintain that the ideals of a well-rounded education require attention to students as *whole people* who learn in and out of the classroom, always and everywhere. Achieving these goals requires that the student who graduates is more developed than the student who first matriculated. In this sense, “higher” education is a form of transformation borne in conversations with historical and contemporary masters of literature, science, social science, philosophy, and the arts, with writers, authors, and professors variously different, tempting, beguiling, challenging, and inspiring. Higher education has as its purpose, therefore, the preparation of what we understand as inseparable— “*HumanCapital*” that is authentic and humanely competent citizens and workers who are one and the

same persons. It demands educational means and ends that scholars, practitioners, and teachers who study learning describe as *transformational*.

Simply put, the learner as a whole person matters. Contemporary research on learning in college calls for a multi-centric cognitive, experiential, developmental and transformative process that occurs throughout and across the educational experience, integrating academic learning with student development (e.g. Pascarella & Terenzini, 2005). While no educator who works with students should be surprised by these observations, it is only relatively recently that science has demonstrated the critical integrative mental, emotional, biological and environmental processes involved in the act of learning (e.g. Shavelson et al., 2002). Refined brain imaging techniques, most notably, functional magnetic resonance imaging (fMRI), sees learning as it happens in real time in the brain, dramatically showing interactions between areas of the brain dedicated to the functions of conscious awareness, affect, memory, insight, judgment, and problem solving.

What cognitive psychologists, learning researchers, and neuroscientists tell us is strikingly consistent: Thinking, emotional competence, and adaptive behavior are inextricably linked, and it all, as a whole, must be learned—not by chance, not simply by peer affiliation, not primarily from the Internet and television, but with the intentional intervention of caring and demanding adults—parents, teachers, professors and student-affairs professionals, among others. Learning engages the whole person. It is about being able to link thought and emotion, and all with action, in ways that are humane, caring, and responsible. It is about being able to read *Tom Sawyer* or *Alice in Wonderland*, for example, at age 22 in a way that is profoundly different than at age 12—and about reflecting on and choosing different personal behaviors at 22 than at 12.

Given the highly integrative nature of learning, it is fair to ask what approach to such learning is necessary? The College Outcomes Project's approach recognizes and emphasizes tight coupling between students' academic, developmental, interpersonal and experiential lives in which intellectual, personal and social development are crucial. Equally important, it is an approach that seeks to measure *student success, learning outcomes, and institutional effectiveness*, not only in terms of knowledge acquisition and critical thinking, for example, but also in the development of a resilient sense of self, emotional competence, and the capacity for making meaning of and purposeful engagement with others and the world. This is an education that is ultimately transformational, leading to lives marked by optimal intellectual, physical, psychological, emotional, and social well being. We refer to this process and its outcomes as *transformational learning*.

Transformational learning means that students have been helped to: prepare themselves as thinkers and citizens for a challenging world; question and affirm or change what they believe; and come to a greater understanding of the complex questions of their own lives and those of others than they otherwise would. This occurs as they are purposefully challenged to connect feelings with

ideas, create meaning, construct a strong sense of self, develop a resiliency that enables them to face the ups and downs of modern life and the capacity to take perspectives that allow them to learn from different people, cultures, and ideas. This student challenge is generated through purposeful college environments.

### *A Transformational Learning Environment*

Transformational learning as a standard for higher education challenges the efficacy of traditional academic curriculum, pedagogy, institutional culture, and organizational structure in its contemporary expression in the United States because the academy's philosophical separation of mind, body and experience serves mostly as a rationale for maintenance of the status quo. Despite eloquent mission statements proclaiming the goal of producing well-rounded student-citizens prepared to serve, lead and live fully engaged lives, in most institutions of higher learning it is still minds and not the whole person that go to class; and it is still content acquisition, completion of assignments, test taking, and final grades that count most heavily toward the ultimate definition of student success, graduation.

Currently colleges and universities myopically award academic credit to minds, not whole persons. Minds are what higher education is all about; knowledge transfer is the gold standard of intellectual achievement and cognitive maturation. The rest of "whole" persons (and all the things that go with them – the multiple identities (gender, racial, sexual, religious identity, etc.), emotions, physicality, personal experiences, aspirations, perspectives and prejudices are addressed almost exclusively, if at all, in the "other," non-academic, student services, residential life, recreational and athletic programs of the academy.

The unfortunate dichotomy of mind and whole person is operationalized through institutional structures, reward systems, and conventional academic policies that discourage the creation of holistic, transformative learning environments and the facilitation of full student engagement, learning and flourishing. We are suggesting a shift from a view that learning is primarily the acquisition of desired knowledge and behaviors to a view that transformational learning is the construction of knowledge and identity—meaning-making—by the individual, construction that is mediated by the context of the learning, the social environment, and the prior knowledge of the learner. All learning involves interaction between the individual learner and the specific learning environment. And, transformational learning is more likely to occur when the potential of these transactions is maximized through the *purposeful*, or intentional, design of learning environments.

### *Attributes of Transformational Learning*

Transformational learning goes beyond providing useful and transferable knowledge content and skills contributing to students' intellectual growth and

vocational preparation to include their full development as individuals—their well-being and sense of civic, moral, and social purpose. Such *transformational* learning is necessarily:

- Developmental. During the college years, students experience fundamental shifts in their perceptions of self, others, and community. Changes in these three areas have profound implications for the ways they make meaning of their learning and experiences, as well as their functioning in relationship to other individuals and to society. These transformations are along the lines of what psychologists call “developmental” change, in which challenges in the environment cause individuals to move toward new – and generally more complex – ways of understanding and being in the world. This developmental view provides a starting point for the work of the College Outcomes Project and our understanding of transformational learning – that a college education can be both catalyst and medium for the journey toward complexity in knowing and doing across a range of domains (intrapersonal, interpersonal, moral).
- Holistic. Most college students gain substantial academic knowledge and skills through college participation, as well as identify and move toward a career path during their time at college. However, change during the college years is not limited to the academic and vocational realms even though these areas remain the focus of much of the academic enterprise. Rather, by crisscrossing the cognitive, affective, psychosocial, and behavioral domains, learning that is transformational encompasses multiple aspects of one’s evolving identity. This kind of learning goes beyond acquisition of specific content or mastery of a set of skills to “deeply” engage the learner’s capacities for understanding, feeling, relating, and acting.
- Integrative. Transformational learning involves the integration of experience, reflection, and action in a learning cycle that is iterative rather than having a definite endpoint. In a Deweyian sense, transformational learning is distinguished from other types of learning by being active and involving ongoing experimentation, rather than being passive absorption of information. In addition to fostering integration of these *learning processes*, transformational learning also integrates learning from *multiple sources and settings*. Learning that is transformational resembles a latticework of meaning-making and application across students’ experiences in and out of class and on and off campus.
- Contextual. Rather than occurring in the solitude of the individual, transformational learning requires engagement with social contexts. Through transformational learning, students come to understand the interdependence of self and society, engage in the construction of shared meaning in collaboration with others, and negotiate for shared action that benefits the common good. In this way, transformational learning

ultimately develops civic capacities for democratic participation and engagement in community life.

Transformational learning involves the experience of optimal psychological and social well-being and continual process of positive development that is well-represented by a construct our colleague Corey Keyes ( Keyes, 2005, 2006, 2007) calls *flourishing*. Flourishing, anchored at the most positive end of a continuum of psychosocial functioning is a state in which individuals achieve high functional levels of emotional, psychological, and social well being. “Languishing,” at the lower end, is marked by significantly reduced levels of physical, emotional, psychological, and social functioning. This state of languishing may explain much of the common observation of large numbers of “disengaged” students on our campuses who seem so prone to mobilizing maladaptive responses such as social withdrawal, alcohol and other drug misuse, depression, suicidality, cheating, and relational violence as defenses against anxiety and despair born of their disconnection from supporting and mentoring communities. The process of transformational learning may be viewed as a work in progress marked by a persistent striving toward flourishing.

We thus incorporate the notion of flourishing into our conceptualization of transformational learning as a higher level, unifying horizontal goal towards which college students should endeavor, that harmonizes well with developmental concepts of identity formation, morality, resilience, and personal and social competence so central to the educational missions of colleges and universities. Transformational education and flourishing have profound implications for the fuller integration of students’ academic experience with opportunities for emotional and interpersonal development, social and civic engagement.

### *Transformational Learning Outcomes*

The College Outcomes project asks: 1. “What outcomes are implied by the notion of transformational learning?” 2. “How will we know such learning when we see it?” and 3.” What institutional changes may be necessary to better promote transformational learning?”

This project has been informed greatly by the work of the Association of American Colleges and Universities (AAC&U), especially its LEAP initiative with its comprehensive delineation of liberal education outcomes. It is their comprehensive work, along with others such as Wabash’s Center of Inquiry in the Liberal Arts, that has allowed us to explore more in depth the meaning and implications of what we consider key dimensions of liberal learning.

We have conceived of transformational learning outcomes as falling into two closely related, broad categories. The first category, the “traditional,” primarily cognitive outcomes of college, includes knowledge and reasoning in the disciplines, as well as the broad abilities of critical thinking, analytic reasoning, problem solving, and communication (see Appendix 2 for an example of defining

characteristics of these outcomes). The second category contains those outcomes addressing psychosocial, affective, and interpersonal dimensions, inextricably connected, to cognitive development.

The traditional outcomes are universally accepted by academe as fundamental and have received extensive attention, study, and measurement (e.g. assessment measures developed by professors for their own classrooms, institutional measures such as the Collegiate Learning Assessment). Indeed, such outcomes are central to what we are calling transformative education. But in addition to content knowledge in the disciplines, and the ability think critically, for example, traditional learning outcomes involve what has been termed *intellectual development*. Such development underpins “meaning making” and is key to what is normally referred to as “learning how to think:”

**1. Contextual reasoning.** Students move from more dualistic and rigid ways of understanding and making meaning toward a stance that recognizes and incorporates multiple perspectives. Students learn to navigate "shades of grey" in their knowing by developing the ability to understand and shift between contexts (Perry, 1999).

**2. Knowledge creation.** Rather than recipients of static knowledge (viewed as facts and information) that is received from authorities, students come to view themselves as active creators of their own internal "truths" with which they then must negotiate and come to integrate with those of others, e.g., faculty, peers, disciplines, and texts (Belenky et al. 1997; Baxter Magolda, 2004).

**3. Reflective judgment.** Students learn to reason about ill-structured problems and justify their beliefs in such situations. This involves the recognition of uncertainty and ambiguity and the development of abilities to judge the efficacy of knowledge claims of certainty.

Given the vast amount of attention already paid to the traditional cognitive outcomes, and while acknowledging the need for more work on the construction of curricula, pedagogy, and assessment that do justice to the developmental aspects of intellectual development, the College Outcomes Project has intentionally focused on the second category and has concentrated on four outcomes: Perspective-taking; Identity; Emotional Competence; and Resilience. We by no means imply that these are the only outcomes of importance. These four were, in fact, chosen from a larger list of significant outcomes (e.g. creativity, leadership); the limited scope of our project required us to focus on a few salient outcomes (See Appendix 1 for a matrix of existing research and projects informing our work). These outcomes, described below using the acronym “PIER,” are developmental, holistic, integrative, and contextual in nature and are reciprocally connected to the more traditional intellectual outcomes:

**P—Perspective-taking:** An individual’s competence in accurately understanding an “other’s” (individual, group, or culture) viewpoint in situational context— seeing, both cognitively and emotionally (empathically) a situation through the eyes thoughts and feelings of another person(s). This outcome is key for a person to appropriately balance the psychological well-being side of life—the “I” and “Me”—with the social well-being side— “I” and “We.” It is key to the development of multiple competencies: ethical, moral, and socio-cultural — the capacity for mutual interpersonal, social, and inter-cultural relations, community and civic engagement.

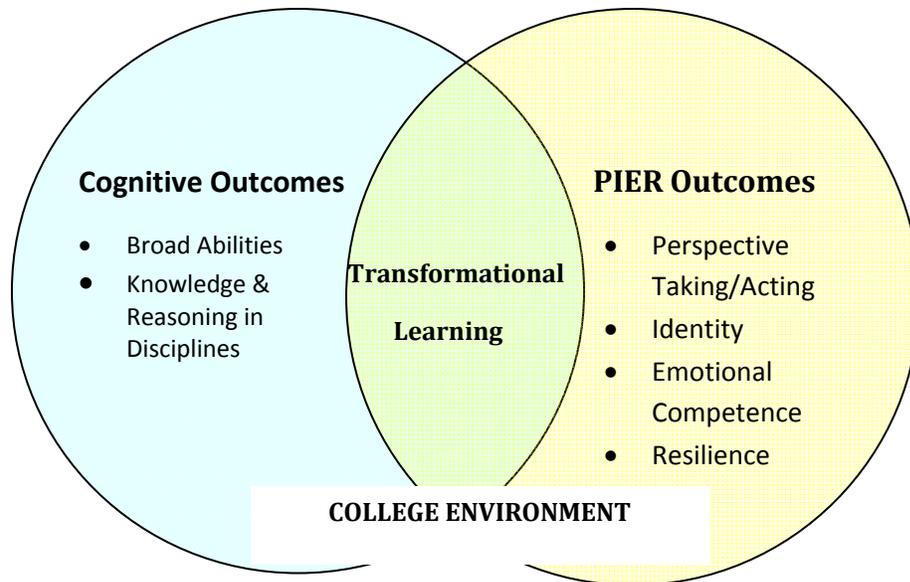
**I—Identity:** Identity development refers to the enduring self that is powerfully shaped from childhood through college and post-college years. This outcome is critical for both “traditional-age students” who are faced with the new responsibilities and freedoms of college, and for adult learners who must reconsider an identity that is currently being forged in the crucible of work and family responsibilities. Identity development is intellectual, affective, and psychosocial in nature, and involves the achievement of self-awareness and self-acceptance, establishment of interdependence between self and others/community, and the development of purpose and integrity.

**E—Emotional Competence:** The ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in oneself and others. Acquiring emotional competence is a developmental process related to learning to recognize, make meaning of, and manage one’s emotions in the service of empathy, relationship building and environmental mastery.

**R—Resilience:** An individual’s capacity to effectively deal with stressors and risks at all levels of severity ranging from confronting the challenge of a difficult exam to coping with a serious illness to self or significant other. In this regard, we include the attribute of *coping* under the umbrella of *resilience* and believe the resilience process reveals itself in the same mechanisms that promote successful adjustment to college as well as persistence through completion of one’s college degree.

The diagram below attempts to capture the environmentally grounded and holistic nature of the range of outcomes we believe constitute transformational learning. Transformational learning is at the intersection of disciplinary mastery, broad reasoning abilities, and PIER outcomes, the cumulative result of which moves individuals in the direction of “flourishing.” The “college environment” context is crucial and here is meant to represent the particular cultural conditions of both on and off campus experiences that clearly affect each and all of the learning outcomes.

## FLOURISHING



### Perspective-taking and perspective-acting

Perspective-taking and perspective-acting are fundamental outcomes of a college education, central to the development of ethical and moral competence, and socio-cultural competency—interpersonal, social, and inter-cultural relations, community and civic participation. *Perspective-taking* is an individual's competence in accurately understanding an "other's" (individual, group, or culture) viewpoint in situational context-- seeing (cognitively and empathetically) a situation through the eyes and mind of another person(s). *Perspective-acting* is an individual's competence in translating one's understanding of another's viewpoint into actions; the capacity to use the information gathered and the inference made in perspective-taking to act in a normatively reasonable and justifiable way.

By competence is meant the capacity to accurately apprehend and reflect another's cognitive construction, emotions, and motivation in that situation; there exist both cognitive and affective components. Embedded in our notion of perspective-taking is the perceiver's capacity for empathy without which taking someone else's perspective would represent an emotionally detached rational,

cognitive exercise, (something akin to one's hearing a group of people who were victimized by extreme discrimination and merely responding with "Yes, I see your point"). Though they can function separately, perspective-taking is at its best when the cognitive and affective components operate in tandem. Just as the perceiver must be cognitively developed to the point to be able to understand another's cognition in a situation, the perceiver must be able to genuinely understand another's emotion in the situation (e.g., a cognitive and affective understanding of the effects of discrimination).

Perspective-taking/acting are abilities developed over time requiring that one purposefully come in contact with different and diverse ideas, people, and experiences. While chance encounters certainly are potentially valuable learning opportunities, we stress "purposefully" here because the ability to understand the other's perspective is optimally developed with practiced reflection in and out of the classroom, and directly connected to civic engagement, ethical and moral reasoning/action, and socio-cultural competence (e.g. Hurtado, Engberg, Ponjuan, & Landreman, 2002; Eisenberg & Fabes, 1998).

We understand civic engagement as having both capacity and normative dimensions. Civic engagement is a person's capacity to assess and take action designed to identify and address public concerns, and recognize that a citizen in a democratic society *ought* to engage civically. That is, civic engagement ranges from individual voluntarism to institutional involvement to participating in such activities as elections. It might involve the person directly addressing a public concern (e.g., local poverty), to working with others in formal organizations for the good of the community (e.g., serving on a city council), to interacting with the body politic reflected in the democratic process (e.g., voting, writing a letter on a civic issue to an elected official).

A civically engaged person, then, has the competence to assess situations successfully in each of these various types of civic activities and is committed to making a positive difference. Perspective-taking/acting is the ability that enables a person to take the perspective of others in learning how to identify and ultimately address public concerns and thus both the reasoning and action dimensions of taking perspective are inextricably linked to civic engagement. Having said all this, however, we wish to note that the issue of civic engagement is still much debated in the academy and requires a significant amount of attention and research regarding optimal conditions for such engagement on and off campus and research to determine its intended effects.

Socio-cultural competence refers to a broad domain of relationships between an individual and others. Those "others" might be close interpersonal relations such as those associated with kinship, marriage, or close friendship. "Others" might simply be people one comes in contact with in a neighborhood, at work or in a community. Or "others" might refer to people from different cultures.

By competence we mean the individual's capacity to successfully engage in and maintain relationships with "others" for mutual benefit, which necessarily

involves the ability to interface with difference (Bennett, 1998). Moral and ethical issues and problems inevitably arise in such relationships necessarily requiring a perspective-taking/acting ability; it is impossible to understand the nature of a moral problem without such a capacity since by definition a moral or ethical problem involves the “other” and the need to take the perspective of “other” if a just resolution of conflict is desired (Kohlberg, 1984).

## Identity

The core of intellectual and emotional life in our PIER outcomes is *identity*. Identity refers to the development of the enduring self that is powerfully shaped before, during and after the college years. For “traditional-age students,” college is quite often students’ first foray into adulthood, with its corresponding freedoms challenges, and responsibilities. And for adult learners, college is usually a combination of a continuation of identity development and the challenge to reconsider an identity already being forged in the crucible of the work and family responsibilities. In both cases, identity is at the epicenter of transformational learning: only the “deepest” kind of learning has the capacity to shape the core self. While students may learn many “things” in college, the successful transformation of self is ultimately one of the outcomes that defines a college experience as “higher” education.

The developmental and higher education literature both describe identity development as intellectual, affective, and psychosocial in nature. Intellectual development involves a movement from reliance on external authorities for self-knowledge to recognition of the self as a primary voice of authority with the ability to construct meaning beyond that “received” (Perry, 1999; Belenky et al. 1997). Affective development encompasses the appropriate management and use of emotion while psychosocial identity development encompasses multiple dimensions of identity (e.g., race and ethnicity, gender, sexual orientation, faith and spirituality, and others), as well as social relationships, moral values, and life goals and purposes (Chickering and Reisser, 1993). Extensive research demonstrates that many of these areas are in fact meaningfully influenced by the college experience (Pascarella and Terenzini, 1991; 2005).

Identity is multifaceted and complex and at its core is the development of a consistent sense of self that is integrative, reflective, and purposeful. It involves several processes and capacities including: self-awareness; what Baxter Magolda calls “self-authorship,” and self-acceptance; recognition and integration of multiple dimensions of identity; interdependence; and purpose.

- **Self-awareness** involves the development of reflective thinking, or awareness of the role of the self in generating knowledge and forming beliefs. Through this developmental process, students come to view the self – as opposed to only external authorities – as a legitimate seat of knowledge and beliefs. They also begin to recognize the uncertainty and ambiguity inherent in their knowledge and beliefs, as well as develop criteria for evaluating

arguments and evidence ( Perry, 1999; Belenky et al. 1997; Kitchner and King, 1994).

- **Self-authorship and acceptance** involves constructing a positive sense of one's own values and identity and developing a coherent belief system and identity that facilitates engaging with others. Students moving toward self-authorship and acceptance choose their own values, engage in mutual negotiation of relational needs, take into account others' perspectives without being consumed by them, and view and describe the self primarily in a positive light (Baxter Magolda, 2004).
- **Recognition and integration of multiple dimensions of identity** includes gender, race and ethnicity, socioeconomic class, spirituality, sexual orientation, and others, as well as major life roles. While there are several dimensions of identity which undergo development in college, each generally follows the process of first, awareness, then exploration, and finally integration into a coherent, overall sense of identity. Students develop the ability to name and describe the multiple and simultaneous dimensions of their identities, as well as articulate the relationships (both complementary and conflicting) between these identities. They can also describe how these identities are/have been integrated in personal experience and recognize the impact of these multiple identities on personal values, beliefs, and experience (Chickering and Reisser, 19993).
- **Interdependence** involves not only the process of individuation and a shift toward an internal locus of control, but also movement through autonomy toward a state of healthy interdependence with others. Students who are developing interdependence take responsibility for self-support in the college environment, identify and utilize campus and other external resources appropriately to resolve problems, and demonstrate appropriate help-seeking behaviors while maintaining self-direction. They can also articulate an awareness of their place in the community, demonstrate a commitment to the welfare of the community, and form collaborative partnerships with other stakeholders to address both personal and community challenges (Chickering and Reisser, 1993).
- **Purpose** involves the ability to intentionally define options, clarify goals, make plans, and to persist despite obstacles (resilience) culminating in the construction of a coherent set of plans and goals that informs intentional daily and longer term behavior. Students with a sense of purpose demonstrate intentionality (versus indecision or inaction) in conceptualizing their future plans (including vocation), personal interests (e.g., social groups, sports, religious affiliations, etc.), and relationships (e.g., family, friends, significant others). They have the ability to select and focus on personal goals from a range of options, as well as strategize to achieve their goals and demonstrate resilience when confronted with obstacles to these goals (Chickering and Reisser, 1993; Baltes and Baltes, 1990).

- **Integrity** is the ability to articulate a consistent set of personal values and to act in accordance with those values. Consistency is not sufficient; principled thinking becomes central to this task. Students with integrity balance an ethic of justice (principled reasoning) with an ethic of care (empathy and compassion) in endorsing core values. They have respect for other points of view yet consciously affirm core values and beliefs, and are able to match personal values with socially responsible behavior (Chickering and Reisser, 1993; Perry, 1999).

Identity development is inextricably and reciprocally linked to the other transformational learning outcomes of perspective-taking, emotional competence, and resilience. For example, the ability to take another's perspective involves the ability to shift one's frame of meaning from self to other; without self-awareness, self-authorship and acceptance, taking another's perspective without being subsumed is not possible.

The development of interdependence, purpose and integrity allows for students to deal with the implications of perspective-taking: namely, that they must negotiate with others in their communities to develop shared meaning and courses of action. Emotional competence also develops in tandem with identity; a stable, positive sense of self – combined with the capacity for healthy and interdependent (versus dependent) relationships – provides a foundation for emotional stability and wellness. And finally, the capacity for resilience expands and deepens while working through the challenges of identity development, and supports the individual through these challenges.

## **Emotional Competence**

Emotional competence is the capacity to recognize, make meaning of and manage one's emotions in the service of empathy, relationship building, capacity for taking the perspectives of others and environmental mastery (Mayer, J.D. and Salovey, P, 1997). Emotional Competence, interacting with cognitive capacity, conveys information about relationships and one's environment. Emotions can communicate vital data about the relationships between: the individual and friends or family; a particular situation or society at large; and internally between the person and the self, one's values or important experiences. Put slightly differently, Emotional Competence refers to: the ability to recognize and make meaning of *emotional response patterns* in oneself and others, (sadness as a sign of disappointment in the self; anger as a response to injustice; remorse as an indicator of moral or ethical lapses, etc.); and the ability to reason and solve problems on the basis of understanding emotional patterns and what they can explain about relationships and the contexts in which they occur.

Operationally speaking we are referring here to certain kinds of *intrapersonal* and *interpersonal* capacities (Mayer, Salovey, and Caruso, 2000), and skills that include the following:

- The ability to *experience* our emotions and understand what we feel and believe in order to facilitate *authentic communication* with others
- The capacity to *perceive and make sense of the meaning of emotions expressed by other people* with whom we interact
- The ability to *“read” and make sense of our emotional responses to other people and situations* in varied interpersonal, social, educational, occupational and other contexts in the service of environmental mastery
- The *ability to regulate our own emotions* in the service of making meaningful interpersonal connections and sustaining relationships
- The *ability to “attune”* ourselves to and make sense of the emotional expressions, “messages” and experiences of others to understand how they experience their world
- The *ability to use empathy* to experience and appreciate the feelings, beliefs and points of view of others as a prerequisite to the capacity to “take the perspectives of others

The development of students’ ability to use their emotional lives and capacities as a critical source of self-reflection, meaning making, interpersonal connectedness, empathy and compassion for others serves them well in terms of our other outcomes of interest, i.e., development of self-identity, resilience and capacity for taking the perspectives of others. And such competence is key to developing better understanding in such domains as aesthetics, moral, spiritual and ethical being, social problem solving, and basic qualities of leadership.

## **Resilience**

Emerging adulthood, which roughly spans the late teens through the middle to late-twenties, is arguably the most challenging of the life stages (Arnett, 2000). It entails successful navigation of the transition away from one’s home and family to greater self-reliance and emotional independence, the development of mature intimacy in one’s relationships, and engagement in the processes of individuation and identity development. Each of these developmental tasks is marked by change and thus their successful completion requires the ability to *adapt* and to cope with the *Sturm und Drang* inherent to these late adolescent years.

But “traditional” age students no longer dominate the academy. Older “adult learners” now make up at least half of the college-going population. They are often coping with challenges and stresses of work and family obligations in addition to new college challenges. Moreover, for both groups the changes and stressors brought on by college attendance are accompanied by the significant

challenges of new academic and social environments. These challenges impact both adjustment to college demands and persistence to degree completion (e.g. Tinto, 1987; Aspinwall & Taylor, 1992; Hurtado, Carter & Spuler, 1996)).

The ability to overcome and bounce back from challenges is critical to one's successful development and overall mental health in the college years (Masten et al., 2004; Park, Cohen, & Murch, 1996; Leong, Bonz, & Zachar, 1997) and is one of the hallmarks of the construct known as *resilience*. We understand the resilience process to encompass both individual and environmental components and with each of them, a set of protective factors which promote resilience (see Masten, 2001). Resilience, then, emerges in the interaction of *person-in-environment* as suggested in the diagram on page 11. Resilience as defined here incorporates one's ability to deal effectively with stressors and risks at all levels of severity whether one confronts the challenge of a difficult exam, face a serious illness or sustain a personal loss. Some call these responses *coping* ( e.g., Lazarus & Folkman, 1984; Carver, Scheier, & Weintraub, 1989) and so we intentionally bring the notion of coping under the umbrella term *resilience*.

The traditional view of resilience focuses on the process of overcoming severe challenge, the primary components of which include both the challenge and the achievement of adaptive developmental outcomes in the face of that challenge (e.g. Bonnano, 2004). If the challenge is severe, the resilience process will result in (at least) the maintenance of one's levels of psychosocial functioning from before the introduction of the challenge; indeed, the resilience process may even have what is known as a "steeling effect," wherein an individual emerges from the episode with even greater capacity to respond to future challenges (Rutter, 2006). If the challenge is less severe, yet still stress-producing, adaptive developmental outcomes might simply be defined as progress toward accomplishment of age-salient developmental tasks (Masten, 2004), which as noted above in the college years, include the development self-reliance and emotional independence, intimacy, individuation, and identity formation.

Many different coping strategies underlie resilience, the most adaptive of which include the following (Carver, Scheier, & Weintraub, 1989):

- ***Active, problem-focused coping***: occurs when one takes active steps to try to remove, circumvent, or mitigate the stressor; components include planning (the cognitive process that underlies active coping) and restraint (the ability to recognize the wisdom in waiting until an appropriate opportunity to act presents itself). It is important to note, however, that while it is certainly adaptive to avoid significant risks in college, at the same time it may be maladaptive to shy away from risks altogether. As noted earlier, exposure to mild stressors can be beneficial toward building up resistance to future risk and may result in an increased sense of personal agency.

- **Suppression of competing activities:** process through which one puts other projects aside to concentrate more fully on the challenge or threat at hand.
- **Positive reappraisal:** process of managing one's distress emotions (especially when the stressor is unlikely to be removed or mitigated).
- **Acceptance:** to accept the existence of a stressor (as opposed to denying it) as a first step toward effectively dealing with it.
- **Use of social supports:** including instrumental support (such as advice, assistance, and information) and emotional support (such as moral support, sympathy, and understanding)
- **Religious coping:** relying on one's religion as a support system in times of stress; however, religiosity is not considered a universally beneficial coping mechanism

Note that the first four coping strategies incorporate intrapersonal processes as well as interpersonal/extrapolational processes. In the past, the intrapersonal, interpersonal, and environmental factors have often been addressed in isolation. We believe resilience can be best understood as a transactional-ecological process of human development, which considers the *interactions* of risks and responses across the domains of one's life (Masten, 2001).

There are two primary factors, one individual and the other environmental, that help to ameliorate one's reaction to stressors: 1) *individual resources*, which include the student's internal assets and personality traits, (e.g., self-regulation, internal locus of control, interpersonal competence, intellectual capacity, sense of purpose) and 2) *environmental affordances*, which include the people, groups, and structures upon which the student may rely for support (e.g., supportive adult relationships, strong social network, positive school environment) (see Luthar, Cicchetti, & Becker, 2000).

Students who possess these individual resources will be better equipped to confront the challenges brought on by the college environment; college environments that tender these affordances will be better equipped to help enhance their students' resilient functioning. However, while these individual and environmental protective factors in and of themselves promote the resilience process, it is at their intersection where the resilience process flourishes. The student with high interpersonal competence is more likely to build relationships with adults and peers in the college setting, just as the student in possession of an internal locus of control and sense of purpose is more likely to avail him- or herself of the school's programs, organizations and activities, *if available*.

## ***Learning Assessment: How Will We Know Transformational Learning When We See It?***

Institutions are effective to the extent that they purposefully design and implement learning experiences that support students in achieving desired outcomes. Desired student outcomes blend students' acquisition, application, and adaptation of new knowledge and abilities (something that has often been called "learning") with their preparation for life, citizenship, and work (which has usually been called "student development") and the promise of realizing their full potential (i.e., flourishing). These blended outcomes vary in emphasis from institution to institution, but are consistent in their themes; most colleges and universities of all types want their graduates to have:

- Mastered general educational material and specific disciplinary content usually obtained in a major
- Acquired key broad abilities (e.g., critical thinking, analytic reasoning and problem solving)
- Developed skills and commitments for involved participation as citizens
- Achieved important benchmarks of personal, interpersonal and social maturation.

Preparation for the world of work – and therefore practical skills – may be more important to some institutions than others, while the capacity to make meaning of deep disciplinary content or conduct innovative research is more important to others. Regardless of differences in emphasis, student success is a unifying, comprehensive concept that couples academic and student affairs educators in the education and transformative preparation of the whole student. The desired student learning outcomes cannot be achieved in the classroom alone – nor without the classroom; similarly, they cannot be achieved through experiential learning outside the classroom alone – nor in the absence of those opportunities. Transformative learning is possible when the whole campus purpose is successful student learning, when that purpose is reflected in policy, and when learning activities are coordinated and "tightly coupled."

We believe that a transformational higher education must include learning assessment *as a form of teaching and learning and institutional improvement*, rather than simply as a way to meet external demands for accountability. Timely and appropriate feedback to both students and teachers enhances learning. Moreover, the learning assessment process at its best increases transparency for students and teachers in the statement of expectations and standards—learning ought not to be a guessing game. This said, the use of outcomes measures as stocktaking to see if progress toward institutional goals is also essential. A learning organization must have feedback and must reflect on performance to improve. Towards that end, our Project has defined specific

outcomes as sketched in this paper. At present, we are using these definitions to identify and in some cases build new assessments to measure transformative-learning outcomes.

To this end, we have made progress in two main areas. The first area is to accumulate and evaluate available measures of critical facets of our outcomes. We include the four PIER outcomes as well as indicators of *college environment* and *flourishing*. The second area is to see if we can go beyond current assessments to create direct measures of the constructs identified in our PIER model.

### Accumulation of existing measures

We are currently in the process of accumulating measures that have been used to assess important facets of the PIER outcomes just described. For example, one important facet of perspective taking/acting is moral judgment and decision making. Consequently, in Table 1, under Perspective Taking/Acting, we have accumulated measures of moral judgment and are in the process of evaluating their reliability, validity and utility in assessing our PIER outcomes. One caveat is in order. The measures are “roughly” classified by “Outcome.” This said, a number of the instruments identified measure multiple PIER outcomes and where there is a preponderance of one PIER outcome compared to others, we have so classified the instrument. For those that clearly span the outcomes, we have included an “Omnibus” category.

**Table 1. Measures to Be Evaluated (Process of Identification and Evaluation Is Ongoing)**

Outcome	Title of Instrument	Type	Description
<b>Perspective Taking/Acting</b>	California Institute of Technology	N/A	Science Magazine (Roots of Morality article). Grafman and Adolphs have been collecting hundreds of real-life moral dilemmas experienced by people of different ages, education levels, and socioeconomic backgrounds
	Defining Issues Test (Rest, 1979, 1980)	Self report, Likert-like scale	Uses a Likert-like scale to give quantitative rankings to five moral dilemmas, the data of which are then analyzed. The analysis of this data reveals information about three schema of moral reasoning: The Personal Interests Schema, The Maintaining Norms Schema and the Postconventional Schema
	Interpersonal Reactivity Index (IRI, Davis, 1983)	5-point Likert-like self-report scale	28-item paper and pencil measure which yields 2 cognitively oriented empathy scales and 2 emotionally

			oriented empathy scales
	Moral Judgment Interview (Kohlberg, 1958)	Semi-structured interview (45-mins)	From a theoretical point of view, it is not important what the participant thinks should happen in the dilemmas. Kohlberg's theory holds that the justification the participant offers is what is significant, the <i>form</i> of their response
<b>Identity</b>	Identity Style Inventory (based on Berzonsky, 1980)	5-point Likert self-report scale	The 40-item test measures the use of the three identity styles (normative, informational, and diffuse/avoidant), as well as level of ideological and interpersonal commitment.
	Iowa Developing Autonomy Inventory (Hood & Jackson, 1983)	5-point Likert-like self-report scale	The 90-item Developing Autonomy Inventory is made up of six 15 item subscales: Mobility, Time Management, Money Management, Interdependence, Emotional Independence Regarding Peers, and Emotional Independence Regarding Parents.
	Objective Measure of Ego Identity Status (Bennion & Adams, 1986)	6-point Likert-like self-report scale	Extended version (64 items) and revised version (28 items)
	PSS-10 (Cohen & Williamson, 1988)	5-point Likert like self report scale	The PSS-10 measures the degree to which one perceives aspects of one's life as uncontrollable, unpredictable, and overloading.
	Rosenberg's Self-Esteem Scale (1979)	4-point scale (self-report)	Consists of 10 statements related to overall feelings of self-worth or self-acceptance. The items are answered on a four-point scale ranging from strongly agree to strongly disagree. The SES has also been administered as an interview.
	Self-Authorship Survey, rev. (Pizzolato, 2008)	5 point Likert-like scale (self-report) and a short answer experience section	40 items. Asks questions about students' preferences and feelings about making decisions. Assesses both self-authored reasoning and action.
	Self-Control Scale (Grasmick et al. 1993)	5-point Likert-like scale (self-report)	The scale contains total of 36 items, four questions form each of the six categories (impulsivity, simple task, risk seeking, physical activities, self-centeredness, and temper.)

	Test of Self-Conscious Affect (TOSCA, Tangney, Wagner & Gramzow, 1989)	See description section	Consists of 10 negative and 5 positive scenarios taken from personal accounts of shame, guilt, and pride from several hundred college students and other older adults. Participants are asked to imagine themselves in the scenarios. They then rate their likelihood of responding to each scenario with shame and guilt on a scale of 1, not likely, to 5, very likely. Responses are summed across scenarios to obtain scores for the guilt and shame subscales.
<b>Emotional Competence</b>	Emotional Competence Inventory (Goleman, 1988)	7-point Likert -like self-report scale	The ECI measures 18 competencies organized into four clusters: Self-Awareness, Self-Management, Social Awareness, and Relationship Management.
	Emotional Quotient Inventory (Bar-On, 2006)	Self-report (133 questions)	It gives an overall EQ score as well as scores for the following five composite scales and 15 subscales: Intrapersonal, interpersonal, stress management, adaptability, and general mood
	Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)	Ability test (141 items), predominantly self-report, fill-in the blank multiple choice	The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) is an ability-based test designed to measure the four branches (perceiving emotions, facilitating thought, understanding emotions, managing emotions) of the EI model of Mayer and Salovey.
<b>Resilience</b>	Brief Cope Scale (Carver, 1989)	4-point Likert-like self-report scale	28 questions. 1=I usually don't do this; 4=I usually do this a lot.
	Proactive Coping Inventory (PCI, Greenglass et al, 1999)	4-point self-report scale	55 items
	Proactive Coping Inventory (PCI, Greenglass et al, 1999)	4-point self-report scale	55 items
	Resiliency Attitudes Scale (Biscoe & Harris, 1994)	5-point Likert-like self-report scale	72 items were developed to tap attitudes that would reflect each of the seven resiliencies the Wolin's identified while working with their clients: Insight, Independence, Relationships, Initiative, Creativity and Humor, and Morality.
<b>College</b>	CIRP (Cooperative	Self reports	Two tests: 1. Freshman survey (28

<b>Environment</b>	Institutional Research Program)	ranging from 3-point to 5-point Likert-like scales and true/false	main questions with a number of subquestions), 2. Senior survey (34 main questions with a number of subquestions)
	CSEQ - College Student Experiences Questionnaire (Pace & Kuh, 1987)	Self report Likert-like scale	Assesses student involvement and use of educational resources
	Learning Environment Preferences (Moore, 1987)	4-point Likert-like self-report scale	The LEP addresses five domains which include course content, the roles of instructors and peers, classroom atmosphere and activities, and course evaluation. Each domain includes 13 statements which a student rates (not at all significant to very significant). The student focuses on the level of significance of each task in their learning environment.
	National Study of Student Engagement (NSSE)	4-point to 7-point Likert-like self-report scale	Assesses student participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college.
<b>Flourishing</b>	Mental Health Continuum (Keyes)	5-point to 7-point Likert type self-report scale	Long form and short form (14 questions). Mental health continuum is measured (languishing, moderate mental health, and flourishing)
	NEO PI-R Personality Inventory, revised (Costa & McCrae)	5-point scale (one a self-report, another an observer rating)	240 questions (each) for both types of assessments on Five Factor model: Openness, conscientiousness, extraversion, neuroticism, agreeableness
	Outcome Questionnaire 45 (OQ45, Lambert, Lunnen, Umphress, Hansen & Burlingame, 1994)	Self-report	45 items. Measures personally and socially relevant characteristics associated with school work and stressors. Has an associated feedback system, which provides therapists with feedback about their clients' treatment progress
<b>Social Desirability</b>	Marlowe-Crowne Social Desirability Scale (1960)	Self-report (true/false)	As originally developed, this measure contains 33 true-false items that describe both acceptable but improbable behaviors, as well as those deemed unacceptable but probable.
<b>Omnibus</b>	Personal and Social	Self-report scale	Part of AACU's Core Commitments

<b>(Measures Multiple PIER Construct Facets)</b>	Responsibility Institutional Inventory (PSRII)	for attitude & behavior items; open-ended items relating to experiences, programs & practices	initiative. Assesses college environment along 5 dimensions of personal and social responsibility
	PISA – Student Approaches to Learning	4-point scale (self-report)	52 items. Designed to assess learner differences with constructs representing both “states” and “traits”. To assess learner “traits” the instrument assesses certain learning styles. Learner “states” are assessed by examining factors related to student motivation and strategy use.

**Direct measure of perspective-taking/acting: A performance assessment**

One characteristic of most measures of PIER outcomes is that they involve self-report. So, for example, a person might report how well he or she understands another’s perspective or report on his or her behavior in situations requiring resilience or inter-cultural competency. In some cases, the nature of the outcome demands self-report, such as the area of identity, in particular self-concept and self-efficacy. However, for other outcomes, it just might be possible to get a sample of a person’s *behavior* in real-world simulated conditions such as performance assessment much like the Collegiate Learning Assessment. To test out this idea, we have begun constructing performance assessments of the PIER outcomes most amenable to direct assessment: Perspective Taking/Acting. The results of this assessment task will be reported in a separate paper.

Recall that perspective taking/acting involves individuals who:

1. Are able to take the perspective of others when presented with diverse points of view
2. Demonstrate awareness of the interdependence between self and community, which moves beyond a simple acknowledgement of self as situated in community to an understanding of the transactional (mutually shaping) relationship between the individual and community.
3. Recognize one’s membership in multiple, interdependent communities (campus, local, national, global).

4. Demonstrate a sense of personal responsibility for contributing positively to these multiple communities, with the ability to articulate commitments to specific avenues of contribution.
5. Demonstrate intercultural competence by recognizing cultural contexts, considering the implications of one's and others' membership in multiple identity groups, and utilizing effective intercultural communication skills.
6. Enact personal commitments to community by seeking and creating opportunities for involvement, as well as engaging others and demonstrating capacity to sustain involvement.
7. Utilize effective intercultural communication skills, through/in interaction with diverse groups and in intentional curricular experiences like intergroup dialogue.
8. Engage reflectively with the "difficult" questions of diversity in American democracy, such as power, privilege, and discrimination, in both their historical and current contexts;
9. Consider the implications of one's and others' identities and membership in multiple groups bounded by race, ethnicity, gender, religion, class, sexual orientation, ability, and national origin;
10. Recognize the increasingly global nature of American society as well as the challenges of globalization, such as political, economic, and environmental interdependence;
11. Recognize cultural contexts, considering the implications of one's and others' membership in multiple identity groups, and utilizing effective intercultural communication skills.

To be sure, no single measure, not even a performance assessment, can tap into all of these perspective taking/acting facets at once. Any single measure will tap some combination of these facets. In the work we are currently doing, we have focused on 1, 5, 8, 9, and 11.

To make things a little more concrete, we provide a glimpse of what a Perspective-Taking/Acting performance assessment might look like. We start by constructing a hypothetical scenario that involves a real-world issue or dilemma; in this case, the scenario involves a public works project, a large dam that is in need of significant repair. In its many years of existence the dam has provided power to a handful of local municipalities, as well as plentiful opportunities for recreational activities on the lake it has formed, which in turn brings tourism to a nearby town. However, the presence of the dam has also negatively impacted surrounding areas. Among other things, the river beneath the dam now runs at significantly reduced capacity, affecting the farming and fishing industries of local communities including a Native American tribe and environmental hazards in the

lake formed by the dam have threatened an indigenous species of fish. Separate proposals have been made to either repair the dam, or to tear it down completely.

In this scenario, clearly some local constituents would benefit from the dam remaining up and operational, while others would prefer to see it razed. The performance assessment focuses on a handful of these affected people, such as a member of the Native American community, a business owner in the tourism industry from the local community, and an environmentalist. Documents germane to the dam and the backgrounds of these three constituents provide newspaper articles, transcripts of public speeches, interviews, internet searches, and the like to test takers, so that they have an opportunity to understand the depth of the issue and the experiences, thoughts, and emotions of these community members.

Some of the information in the documents is relevant; some not. Some of the information is reliable; some not. Some information plays on stereotypes; some does not. The test-takers are then asked to *put themselves in the shoes of these three citizens*, and to respond to questions such as: “How do you think these three people feel about the dam issue?” and “What position do you think each of them will take on the future of the dam?” Test takers’ performance is scored as to the extent to which they provide a justifiable description of each community member’s perspective on the dam and justifiable description of the possible emotions held by each again based on reliable, valid evidence that has been provided. There is no single “correct” answer but more or less justifiable perceptions of the community members’ positions and emotions.

### **What institutional changes are necessary to promote Transformational Learning?**

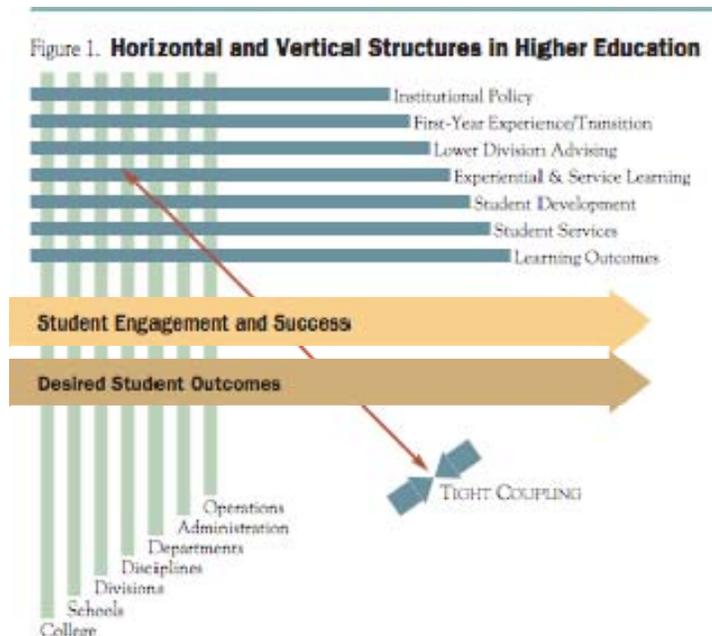
Change in higher education has generally meant small projects, energized by faculty and administration champions and often fueled by limited funding. We are suggesting that the change paradigm needs to shift, that the kind of liberating, transformational education we have been describing requires the collective and cumulative efforts of the whole campus. At the same time, we recognize that culture change is local and we offer here a conceptual framework to inform the strategic and tactical decisions necessarily specific to each campus. All the more reason, we suggest, is the need for appropriate assessment.

Currently, the academy compartmentalizes learning outcomes expecting faculty to focus primarily on the cognitive or intellectual domain associated with information transfer and integration while the remainder of social and personal development (rhetorically acknowledged as important) is relegated to student services staff, coaches, the counseling center, and *de facto*, to peer, resident

advisors (Whitt, Nesheim, Guentzel, et. al., 2008). It is as if we have taken fractured, student Humpty Dumpties at admission to college and asked *them* to put themselves back together again without the necessary intensive teaching, mentoring, opportunity for integrative learning experiences and organizational support required for such a developmental task. The academy, with scholars trained in and expert at deconstructing meaning, has inadvertently deconstructed students in the same way.

Evidence suggests that not only do the pedagogical and curricular transactions inside the classroom influence the loftiest educational goal of a well-rounded student, but so too the transactions that occur outside of the classroom. That is, the campus environment is itself a teacher in that the collective and cumulative effect of all teaching, advising, counseling, and peer interaction can, by purposeful design, greatly influence the kinds of outcomes we most value such as analytic reasoning, writing well, creative thinking, ethical development, ego-strength, and perspective-taking (Pascarella and Terenzini, 2005).

A purposeful transformational learning environment is, to borrow Friedman’s metaphor again, “flat”—integrative, horizontal, crossing organizational barriers (e.g. academic affairs, student affairs, counseling centers) as opposed to an environment that must be constantly negotiated across vertical barriers resulting in a less intentional or “piecemeal” college. Richard Keeling, in his Fall, 2007 *Liberal Education* article, captures in the diagram below the horizontal and vertical forces in the academy.



Horizontal and vertical structures in higher education

While colleges and universities cannot by themselves be expected to reshape the larger culture within which they operate, it is imperative that these repositories of our greatest teaching and scholarly wisdom take far more seriously their own cultures and reshape them in ways that enable, empower, inspire, and also require—not simply ask—students to search and reach for the best they can/ought to become so that they/we may thrive in the twenty-first century. The institutional capacity to accomplish this ideal exists but perhaps not yet the will. But only with transformative campus cultural change will American higher education help this nation reach the potential of its “HumanCapital” ideal.

Indeed, in light of current learning research, the usual “top-down” approach to institutional change has begun to give way to a more inclusive strategic planning process focused on overcoming the silos and cultural constraints that higher education has imposed on itself or has had imposed by others. With regard to means, colleges and universities increasingly understand the need to rethink the notion that it is the faculty that has the sole responsibility for the intellectual development of *minds* while student affairs staff, chaplains, and health service and counseling centers are relegated, as it were, to tend to the developmental, emotional, spiritual, physical, and mental health dimensions of learning, as if these are separable dimensions of being. Some institutions already are changing, in particular those implementing programs that integrate academics and service learning; co-curricular efforts jointly led by faculty and student affairs professionals; experiential learning programs in leadership, civic and community engagement and the like.

For the most part, these changes, while promising, are incomplete on most campuses. They usually represent “random acts of educational effectiveness” rather than comprehensive, integrated, systemic, campus-wide approaches (e.g. see Johnson and Kang, 2006; Nolan, Pace, Iannelli, Palma, and Pakalns, 2006; Lacy, 1978; Stein and Spille, 1974) . In many institutions, the preeminent and present model remains exactly that, predominant and current. A focus on transformative learning demands more, not just a shift in some pedagogic models. What is needed is: a reconsideration of the idea of what transformative student learning, success, and flourishing represent as outcomes; how they are to be taught, learned, and assessed; and what institutional changes are necessary and how best to achieve them in the purposeful pursuit of transformative learning.

## **Conclusion**

The College Outcomes Project argues for the purposeful creation of transformative learning environments that are not centered in disciplines, departments, major fields of study or certificate programs – but rather in an

approach that is holistic and integrative enough to achieve the broader goal of supporting the development of students' full potential across their entire college experience. This demands a systematic way of thinking that goes beyond specific programs and services to envision the whole campus as an increasingly integrated and vibrant learning community within which students – and members of the faculty and staff – can learn, grow and flourish.

We believe that colleges and universities must invest more intentionally and fully in a continuum of student centered learning opportunities (*a purposeful transformational learning environment*) that fosters, supports, and sustains a campus culture in which students' academic achievement is complimented by development of resilient self-identities, emotional competence and capacity for taking the perspective of others in the service of meaningful interpersonal and social engagement, all prerequisites to a state of flourishing.

A learning community organized to support these goals surely can and should hold intellectual development as fundamental but it would inevitably emphasize interdisciplinary teaching models – and interdisciplinary structures-- in the academy, linkages between classroom learning and student life projects and experiences, campus and community learning experiences, and academic and student affairs curricula. It would be marked by comprehensive collaboration within the classroom, across campus, and into the campus community. The whole campus then becomes a learning community in which student-learning experiences can be mapped across the entire environment to deepen the quality of learning. Moreover, such a campus would understand that faculty and non-faculty are both educators and mentors.

Our world is increasingly complex and students ought to not only be capable of coping with it but also actually improving themselves and contributing to the world. Development of an increasing ability to deal with “complexity” broadly defined is what most learning theories have in common. The College Outcomes Project is based on the proposition that students ought to leave college being able to think, feel, *and* ultimately act in more complex ways than they did when they arrived.

In this vein, we are proposing to put Humpty Dumpty back together again by re-integrating all of the outcomes that make us more human and humane and “flattening” the separate campus environments that are currently housed in different sectors of the institution—curriculum and pedagogy on the academic/faculty side -- student health and well-being on the student life side. Such a horizontal integration of outcomes and organizational structures asks that not only our students but also our colleges and universities take seriously the imperatives of a flat world.

## Appendix 1

<b>Comparison of Primarily Non-Cognitive (Affective- and Psychosocial-Oriented) Outcomes Across Reviewed Projects</b>				
<u>REIP Outcomes</u>	<u>Wabash Study</u>	<u>AAC&amp;U reports</u>	<u>Student Affairs Organizations: NASPA/ACPA/CAS reports</u>	<u>Sedlacek's Noncognitive Variables</u>
Resilience			Persistence/academic achievement (LR)	Has Strong Support Person
Emotional Intelligence		Respect for/appropriate use of intuition/feeling (GE)	Inter/intrapersonal competence (LR)	Prefers Long- to Short-Term Goals
Identity		Self-knowledge/personal values (NP) Deep understanding of self and identity (GE) Personal development (TR)	Coherent sense of identity (SLI) Independence (CAS) Personal and educational goals (CAS) Realistic self-appraisal (CAS) Career choices (CAS) Clarified values (CAS)	Realistic Self-Appraisal
Perspective Taking/Acting	Moral Reasoning Intercultural Effectiveness	Discerns consequences of decisions/actions (GE) Responsibility for social justice (GE) Active participation in diverse democracy (GE) Respect for the complex identities of others (GE) Ethical issues/values (NP, TR, L)	Humanitarianism (LR) Civic Engagement (LR) Appreciation of diversity (SLI, CAS) Social responsibility (CAS)	Demonstrates Community Service Understands and Deals w/ Racism

		Citizenship (NP, TR, L) Multi-cultural understanding/awareness (NP, TR, L)		
<i>Flourishing</i>	<i>Well-Being</i>		<i>Satisfying/productive lifestyles (CAS)</i> <i>Meaningful relationships (CAS)</i> <i>Healthy behavior (CAS)</i> <i>Enhanced self-esteem (CAS)</i>	<i>Positive Self-Concept/Confidence</i>
<b>Primarily Non-Cognitive Outcomes Not Aligned with REIP Outcomes:</b>	Leadership		Leadership development (CAS)	Successful Leadership Experience
			Practical competence (LR, SLI)	
			Spiritual awareness (CAS)	

KEY:

NP = AAC&U Greater Expectations National Panel "Goals for Liberal Learning" (2000) brief

GE = AAC&U "Greater Expectations: A New Vision for Learning as a Nation Goes to College" (2002) report

TR = AAC&U "Taking Responsibility for Quality of the Baccalaureate Degree" (2004) report

L = AAC&U - LEAP "College Learning for the New Global Century" (2005) report

LR = NASPA/ACPA "Learning Reconsidered: A Campus-Wide Focus on the Student Experience" (2004) report

SLI = ACPA "Student Learning Imperative" (1994) report

CAS = CAS "Frameworks for Assessing Learning and Development Outcomes" (2006) report

## **Appendix 2**

### **COLLEGIATE LEARNING ASSESSMENT (CLA): DEFINING CRITICAL THINKING, ANALYTICAL REASONING, PROBLEM SOLVING AND WRITING SKILLS**

**RICHARD H. HERSH**

The Collegiate Learning Assessment (CLA) is a national effort that provides colleges and universities with information about their students' performance on tasks that require them to think critically, reason analytically, solve realistic problems, and write clearly. These are learning outcomes espoused by all higher education institutions yet there is little evidence regarding to what extent improvement on these learning outcomes is actually achieved.

We conceptually speak of these learning outcomes as if the meaning of these concepts is shared and understood but in actuality the meaning of these concepts can differ. In addition, any measurement of these (or any) skills is limited by the method with which it is measured and by the content being assessed. In the case of the CLA, we measure these concepts by collecting samples of student performance on constructed responses. The CLA tasks are designed as a set of written "work samples" that are similar to tasks a student

might face in the “real world.” The student must integrate writing, critical thinking, analytical reasoning, problem solving, and reading comprehension skills, plus significant effort in order to perform well. The holistic integration of these skills on the CLA mirrors the requirements of serious thinking and writing tasks we face in life outside of the classroom.

Scoring for every task differs. This document summarizes the types of questions that are addressed by the scoring rubrics in general. Because the tasks on the CLA differ, not every item listed below is applicable to every task. The tasks instead are intended to cover different aspects of critical thinking, analytic reasoning, problem solving and writing and in doing so can in combination better assess the entire domain of performance.

### **Critical Thinking, Analytical Reasoning, and Problem Solving**

Critical thinking, analytical reasoning, and problem solving skills are required in order to perform well on our tasks. We measure performance on open-ended tasks that require the student to use all three skills in combination. We define critical thinking, analytical reasoning, and problem solving skills as a student’s demonstrated ability to evaluate and analyze source information, and subsequently to draw conclusions and present an argument based upon that analysis. More specifically, we consider the following items to be important aspects of critical thinking, analytical reasoning, and problem solving, and attend to scoring those items that apply to a given task.

#### **Evaluation of evidence:**

*How well does the student assess the quality and relevance of evidence?*

- Does the student determine what information is or is not pertinent to the task at hand?
- Does the student distinguish between rational claims and emotional ones, fact from opinion?
- Can the student recognize the ways in which the evidence might be limited or compromised?
- Does the student spot deception and holes in the arguments of others?
- Has the student considered all sources of evidence?

#### **Analysis and Synthesis of evidence:**

*How well does the student analyze and synthesize data and information?*

- Does the student present his/her own analysis of the data or information, or does s/he simply present it as is?
- Does the student commit or fail to recognize logical flaws in an argument. (e.g. does the student understand the distinction between correlation and causation?)
- Does the student break down the evidence into its component parts?
- Does the student draw connections between discrete sources of data and information?
- How does the student deal with conflicting, inadequate, or ambiguous information?

**Drawing conclusions:**

*How well does the student form a conclusion from his/her analysis?*

- Is the student's argument logically sound?
- Is it rooted in data and information rather than speculation and opinion?
- Does the student choose the strongest set of data to support his or her argument?
- Does the student prioritize in his or her argumentation?
- Does the student overstate, or understate, his or her conclusions?
- Can the student identify holes in the evidence, and subsequently suggest additional information that might resolve the issue?

**Acknowledging alternative explanations/viewpoints:**

How well does the student consider other options and acknowledge that her/his answer is not the only perspective?

- Does the student recognize that the problem is complex with no clear answer?
- Does the student bring up other options and weigh them in her/his decision.
- Does the student consider all stakeholders or affected parties in suggesting a course of action?
- Does the student qualify his/her response and acknowledge the need for additional information in making an absolute determination.

## Writing

Analytic writing skills are invariably dependent on clarity of thought. Therefore, analytic writing and critical thinking, analytic reasoning, and problem solving are related skills sets. The CLA measures critical thinking performance by asking students to explain their rationale for various conclusions in writing. In doing so, their performance is dependent on both writing and critical thinking as integrated rather than separate skills. We evaluate writing performance using holistic scores that consider several aspects of writing depending on the task. The following are illustrations of the types of questions we address in scoring various tasks.

### Presentation:

*How clear and concise is the argument?*

- Does the student clearly articulate the argument?
- Does the student clearly articulate the context for that argument?
- Is the evidence used to defend the argument correct and precise?
- Is the evidence presented in a comprehensible and coherent fashion?

### Development:

*How effective is the structure?*

- Is the organization of the argument logical? Is it cohesive?
- Are there any gaps in the development of the argument?
- Are there any significantly extraneous elements in the argument's development?
- In what order is the evidence presented, and how does that structure contribute to the persuasiveness and coherence of the argument?

### Persuasiveness:

*How well does the student defend the argument?*

- What evidence is presented in support of the argument, and how effectively does the student present it?
- Does the student draw thoroughly and extensively from the available range of evidence?
- How well does the student analyze that evidence?

- Does the student consider counterarguments, and address weaknesses in his/her own argument?

Mechanics:

*What is the quality of the student's writing?*

- Is vocabulary and punctuation used correctly? effectively?
- Is the student's understanding of grammar strong?
- Is the sentence structure basic, or more complex and creative?
- Does the student use proper transitions?
- Are the paragraphs structured logically and effectively?

Interest:

*How well does the student maintain the reader's interest?*

- Does the student use creative and engaging examples or descriptions?
- Does the structure syntax and organization add to the interest of his/her writing?
- Does the student use colorful but relevant metaphors, similes etc.?
- Does the writing engage the reader?
- Does the writing leave the reader thinking?

## References

- Arnett, J.J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55, 469-480.
- Aspinwall, L.G. & Taylor, S.E. (1992). Modeling cognitive adaptation: a longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of Personality and Social Psychology*, 63, 989-1003.
- Baker, O., Aberson, C., Barrow, J., & Draper, M. (2006). Nature and severity of college students' psychological concerns. *Professional Psychology: Research and Practice*, 37(3), pp. 317-323.

Baltes, P. B., and M.M. Baltes. 1990. Psychological perspectives on successful aging: The model of selective optimization with compensation. In P. B. Baltes & M. M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences* (pp. 1– 34). Cambridge, UK: Cambridge University Press.

Baxter Magolda, M.B. 2004. Self-authorship as the common goal. In *Learning partnerships: Theory and models of practice to educate for self-authorship*, ed. M.B. Baxter Magolda and P.M. King, 1-35. Sterling, VA: Stylus.

Belenky, M. F., B. Clinchy, N. Goldberger, and J. M. Tarule. 1997. *Women's ways of knowing: The development of self, voice, and mind*. 10th anniversary ed. New York: Basic Books.

Bennett, M.J. (1998). Intercultural communication: A current perspective. In M.J. Bennett (Ed.), *Basic concepts of intercultural communication: Selected readings* (pp.1-34). Yarmouth, MN: Intercultural Press.

Bonnano, G.A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, 59, 20-28.

Carver, C., Scheier, M., & Weintraub, J. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality & Social Psychology*, 56, 267-283.

Chickering, A. W. and L. Reisser. 1993. *Education and identity*. 2nd ed. San Francisco: Jossey-Bass.

Eisenberg, N., & Fabes, R. A. (1998). Prosocial development. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology*, vol. 3: Social, emotional, and personality development (5th ed., pp. 701-778). New York: John Wiley. Eisenberg, N., & Miller, P. (1987). The relation of empathy to prosocial and related behaviors. *Psychological Bulletin*, 101, 91-119.

Hurtado, S., Carter, D. F., and Spuler, A. (1996). Latino Student Transition to College: Assessing Difficulties and Factors in Successful College Adjustment. *Research in Higher Education*, 37(2), 135-157.

Hurtado, S., Engberg, M. E., Ponjuan, L., and Landreman, L. (2002). Students' precollege preparation for participation in a diverse democracy. *Research in Higher Education* 43(2): 163–186.

Johnson, V., & Kang, Y. (2006). Assessing differences in resident assistant confidence in addressing issues of cultural diversity between in three predominantly white universities. *Journal of College and University Housing*, 34(1), pp. 31-42.

Keyes, Corey L. M. 2007. "Promoting and Protecting Mental Health as Flourishing: A Complementary Strategy for Improving National Mental Health." *American Psychologist* 62:95-108.

Keyes, Corey L. M. 2006. "Mental Health in Adolescence: Is America's Youth Flourishing?" *American Journal of Orthopsychiatry* 76(3):395-402.

Keyes, Corey L. M. 2005. "Mental Health and/or Mental Illness? Investigating Axioms of the Complete State Model of Health." *Journal of Consulting and Clinical Psychology* 73:539-548.

Keyes, Corey L. M. 2002. "The Mental Health Continuum: From

Languishing to Flourishing in Life.” *Journal of Health and Social Behavior* 43:207-222

King, P. M. and K. Kitchener. 1994. *Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults*. San Francisco: Jossey-Bass.

Kohlberg, L. 1984. *The psychology of moral development: The nature and validity of moral stages*. Vol. 2 of *Essays on Moral Development*. San Francisco: Harper & Row, Publishers.

Lacy, W. (1978). Interpersonal relationships as mediators of structural effects: College student socialization in a traditional and an experimental university environment. *Sociology of Education*, 51(3), pp. 201-211.

Lazarus, R.S. & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Leong, F.T.L., Bonz, M.H., & Zachar, P. (1997). Coping styles as predictors of college adjustment among freshmen. *Counseling Psychology Quarterly*, 10, 211-220.

Luthar, S.S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71, 543-562.

Masten, A.S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56, 227–238.

Masten, A.S. (2004). Regulatory processes, risk and resilience in adolescent development. *Annals of the New York Academy of Sciences*, 1021, 310-319.

Masten, A.S., Burt, K.B., Roisman, G.I., Obradovic, J., Long, J.D., & Tellegen, A. (2004). Resources and resilience in the transition to adulthood: continuity and change. *Developmental Psychopathology*, 16, 1071–1094.

Mayer JD and Salovey, P, (1997), “What is Emotional Intelligence?” In P. Salovey & D Sluyter (Eds.) *Emotional development and emotional intelligence: Implications for Educators* (pp. 3-31). New York: Basic Books

Mayer, Salovey and Caruso, in particular their chapter on “Models of Emotional Intelligence” in the *Handbook of Intelligence*, Edited by Robert Sternberg, Cambridge University Press, 2000

Mayer, JD & Salovey, P, (1993). “The intelligence of emotional intelligence,” *Intelligence*, 17, 433-442

Nolan, S., Pace, K., Iannelli, R. Palma, T., & Pakalns, G. (2006). A simple and effective program to increase faculty knowledge of and referrals to counseling centers. *Journal of College Counseling*, 9, pp. 167-170.

Park, C.L., Cohen L.H., & Murch, R.L. (1996). Assessment and prediction of stress-related growth. *Journal of Personality*, 64(1), 71–105.

Pascarella, E. T. and P. T. Terenzini. 1991. *How college affects students*. San Francisco: Jossey-Bass Publishers.

Pascarella, E. & Terenzini, P. (2005). *How College Affects Students: A Third Decade of Research*, Volume 2. San Francisco, CA: Jossey- Bass.

Perry, W. G., Jr. 1999. *Forms of ethical and intellectual development in the college years: A*

*scheme*. 2nd ed. San Francisco: Jossey-Bass.

Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Science*, 1094, 1-12.

Shavelson, R.J., Roeser, R.W., Kupermintz, H., Lau, S., Ayala, C., Haydel, A., Schultz, S., Gallagher, L., & Quihuis, G. (2002). Richard E. Snow's remaking of the concept of aptitude and multidimensional test validity: Introduction to the special issue. *Educational Assessment*, 8, 77-99.

Shivpuri, S. & Kim, B. (2004). Do employers and colleges see eye-to-eye? College student development and assessment. *National Association of Colleges and Employers Journal*, 65, 37-44.

Stein, G., & Spille, H. (1974). Academic advising reaches out. *Personnel and Guidance Journal*, 53(1), pp. 61-64.

Tinto, V. (1987). *Leaving College: Rethinking the Causes and Cures of Student Attrition*. Chicago: University of Chicago Press.

Whitt, E., Nesheim, B., Guentzel, M., Kellogg, A., McDonald, W., & Wells, C. (2008). "Principles of good practice" for academic and student affairs partnerships programs. *Journal of College Student Development*, 49(3), pp. 235-249.