

Finding the Connection: College Student Development and Dispositions Assessment in Teacher Education

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Abstract

This article integrates issues of college student development and dispositions assessment by encouraging teacher educators to be mindful of the developmental stages of college students as part of the assessment of professional dispositions. The study provides beginning evidence that teacher educators may have missed the mark with dispositions assessment by focusing only on those elements of professionalism and negating the necessary developmental facets of individuals. Dispositions assessments that are tailored to experiences within the teacher education curriculum and take into account the personal nature of dispositions development will be more successful in constructing longitudinal change and developing professional dispositions.

We must be honest. The initial proposal of assessing the dispositions of prospective teachers seemed, in some way, unethical. We have witnessed teacher educators jumping quickly to the conclusion that assessing dispositions was in some way aimed at creating a militia of ideologically similar teachers. We could imagine the troublesome focus on churning out teachers that upheld only predetermined dispositions and the expeditious decline of the capacity of teachers to be individuals and hold the same civil liberties of all other citizens. Our apprehensions resurfaced with Damon (2005), "NCATE (National Council for Accreditation of Teacher Education) has deemed that, for teachers, all that is personal must belong to the profession" (p. 4). Working from the knowledgebase of research that identifies the impact of personal history on teachers' practice and decision-making (Clark, 1992; Feiman-Nemser & Floden, 1986), we question the ability of those asked to assess dispositions to understand the full context of a prospective teacher's history and potential. Could this focus on dispositions assessment lead to more readily prepared teachers or could the personal developmental traits of individuals predetermine the fate of an aspiring educator?

We agree with NCATE's mission to bring some attention to the professional dispositions of prospective teachers. Historically, there has been a lacking code of ethics. The movement toward an agreed upon code of ethics may in fact be the long-term goal of NCATE's focus on dispositions assessment (Wise, 2006). To be candid, who wouldn't ask for some type of moral gauge or ethical code to determine the readiness of individuals to be teachers when the focus of the evening news is the most recent unethical relationship between a teacher and his or her students?

As teacher educators, we have been back and forth, agreeing and disagreeing on not only the idea of assessing dispositions, but also the process that teacher educators will use to assess

dispositions. The root of this debate is the professionalization of teaching (Sockett, 2006). However, within the movement to create a professional class of teachers, like doctors and lawyers, there appears to be little concern toward prospective teachers psychosocial development as college students. College students are in the process of developing as individuals as well as professionals. With an obligation to attend to dispositions assessment within local teacher education programs, our questions expand beyond practical elements of dispositions assessment. Our expansion of these elements brings a more focused examination of this disconnect between college student development and the assessment of dispositions during the pre-professional development of teachers. In this article we aim to reconnect these two issues that have been seemingly separated, the assessment of dispositions in teacher education and the typical development of traditional college-aged students.

Conceptual Framework

The theoretical framework for this study is actually embedded in the literature of two complementary and connected fields, preservice teacher learning and college age student development. Theories of teacher learning have emphasized what teachers need to know and be able to do within a community of practice (Cochran-Smith & Lytle, 1999; Feiman-Nemser, 2001; Shulman & Shulman, 2004; Hammerness et al., 2008; Zeichner, K., 2005). These models depict teacher learning is ongoing, multidimensional, and where particular dispositions – habits of thinking and actions - are developed that define teachers' personal orientation toward their role in the classroom, children, and the teaching profession. Among the college student developmental theorists Arthur Chickering's (1969) foundational work on education and identity set the stage for debate on how college students mature and develop. Chickering identified a seven stage psychosocial identity model during which students develop competence, manage emotions, move through autonomy toward interdependence, develop mature interpersonal relationships, establish identity, develop purpose, and develop integrity (Chickering & Reisser, 1993). College student development and dispositions assessment in teacher education serve as the joint conceptual frame for this article.

Dispositions in Teacher Education

In 2000, NCATE released a revised set of standards for evaluating teacher education candidate performance based on knowledge, skills, and dispositions. At that time, the definition of dispositions provided by NCATE was:

The values, commitments, and professional ethics that influence behaviors towards students, families, colleagues, and communities and affect student learning, motivation, and development as well as the educators own professional growth. Dispositions are guided by beliefs and attitudes related to values such as caring, fairness, honesty, responsibility, and social justice. For example, they might include a belief that all students can learn, a vision of high and challenging standards, or a commitment to a safe and supportive learning environment. (National Council for Accreditation of Teacher Education, 2000)

From late 1999 until 2006 literature swirled around the expectation of certain dispositions within a college of education, and further the expectation from NCATE that these dispositions be assessed (Johnson, Johnson, Farenga, & Ness, 2005; Leo, 2005; Raths, 1999; Taylor & Wasicsko, 2000; Wise, 2006). In June of 2006, a statement from NCATE noted:

NCATE expects institutions to ensure that candidates demonstrate dispositions that value fairness and learning by all students...In addition to these common sense expectations, institutions may develop additional dispositions that fit their mission. NCATE refers institutions to licensing standards for professional educators adopted or adapted by most of the states. Institutions often identify dispositions that encourage pre-service educators to be caring teachers, collaborative partners, life-long learners, and reflective practitioners. Institutions are encouraged to measure dispositions by translating them into observable behaviors in school settings. The caring teacher creates a classroom in which children respect each other. The collaborative practitioner works with parents and other teachers to help students learn. The life-long learner reads education literature and the reflective practitioner re-thinks how she teaches the unit on geometric shapes. (National Council for Accreditation of Teacher Education, 2006)

Adversaries of dispositions assessment in teacher education have articulated concerns that assessing ones dispositions provides the opportunity for teacher preparation to become social engineers, deter students with differing views to succeed in becoming a teacher, and support that meaningful assessment is key to making dispositions assessment meaningful to teacher development (American Council of Trustees and Alumni, 2006; Damon, 2005; Johnson, Johnson, Farenga, & Ness, 2005). Meanwhile proponents of dispositions assessment have supported the idea that dispositions assessment has a strong relation to teacher effectiveness, that the attainment or teaching of specific dispositions is possible in teacher education, and can benefit from inclusion of social justice issues (Harrison, Smithey, McAfee, & Weiner, 2006; Katz & Raths, 1986; Rick & Sharp, 2008, Thorton, 2006; Villegas, 2007).

Overview of College Student Development

Research continues to document the affects of college on cognitive growth, psychosocial change, attitudes and values, moral development, and the impact of college on one's career (Feldman & Newcomb, 1969; Pascarella & Terenzini, 1991, 2005). Because of college student development research, teacher educators have a strong foundation for understanding how development occurs, how the environment influences that development, and the intended outcomes of that developmental process (Knefelkamp, Widick, Parker, 1978).

College student developmental theories fit into clusters. For example, cognitive developmental theorists focused on universal patterns that individuals go through as modes of thinking are established (Perry, 1970). Vocational theorists (Holland, 1973) postulated that individuals have, and occupations require, a certain set of traits for success and that the closer the match between the personal characteristics and job requirements the greater likelihood for success. Psychosocial theorists often built upon the work of Erikson (1968) that described a life cycle and sequential stages for development.

Chickering and Reisser (1993) postulated, similar to Erickson, that during any developmental stage college students face a developmental issue that needs resolution before the next stage could begin. Chickering identified these stages as vectors that were:

Major highways for journeying toward individuation . . . while each person will drive differently . . . eventually all will move down these major routes. They may have different ways of thinking, learning, and deciding . . . [but] college students live out recurring themes: gaining competence and self-awareness, learning control and flexibility, balancing intimacy with freedom, finding one's voice or vocation, refining beliefs, and making commitments. (p. 35)

However, rejecting the simplicity of sequential models, Chickering described college student development as seven vectors that take form as personal building blocks. While Chickering's theory focused on ages 18 to 24, he did not see age as a determinate of the vector with which a student may be associated. Instead, he viewed his seven vectors, as a culminating experience of college and post-college years.

In vector one college students focus on developing intellectual, physical, and interpersonal competence so that they will have a strong sense of confidence. During vector two, the focus is on gaining control of one's emotions (e.g., anxiety, aggression, sexual attraction, depression). Chickering argued that this control would enable individuals to process experiences in a healthy way and integrate feelings with actions. The third vector describes how college students move through emotional and instrumental autonomy so that they recognize and accept the importance of interdependence. The development of mature interpersonal relationships (vector 4) enables tolerance and appreciation of differences and a capacity for intimacy. These initial vectors are prominent in the lives of traditional-age college freshmen. With this foundation established, the student is then ready, from a developmental perspective, to move on toward the establishment of an identity (vector 5) where an inner sense enables personal stability and comfort with body, gender, and self. During the sixth vector of Chickering's theory individuals develop purpose by clarifying interests and alternatives, and subsequently set a direction for life. In the seventh, final vector, developing integrity, an individual personalizes values by which to live and accepts social responsibility. As shown in Table 1 Chickering's vectors focus on specific conflicts or attainment of specific skills or experiences.

Working from the theoretical foundation of Lewin (1936), Chickering's psychosocial theory (Chickering & Reisser, 1993) supported the view that behavior is a function of a person in his/her environment. Psychosocial theories of college student development argue that development is cumulative (success at one stage determines success in the next), sequential (stages occur in a predetermined order), and regressive (behaviors and emotions are recycled during various stages, demonstrating patterns in feelings or choices). In addition, from a developmental perspective achieving those higher vectors (or stages) does not articulate a better outcome. Rather, the outcome can take shape in different forms depending largely on the individual.

Method

The purpose of this study was to identify the ways in which dispositions assessment is currently taking place within teacher education programs at accredited institutions of higher education, articulate the dispositions that are being assessed, and identify how those dispositions align with the developmental expectations of college students as identified by Chickering. Furthermore, this study proposed to clarify via qualitative research methods how current expectations for dispositions in teacher education students attended to these students' development as college students (not just future teachers). The research question driving the review of dispositions assessment documents was are Chickering's vectors relative to dispositions assessments of prospective teachers?

Design of Study

Disposition assessment has become an intricate part of programmatic assessment by teacher education programs seeking NCATE accreditation. With the large number of teacher education institutions seeking NCATE accreditation, we chose to do a qualitative analysis of disposition documents created under the NCATE accreditation framework to investigate current practice in disposition assessment in teacher education. Researchers compiled a comprehensive list of NCATE accredited teacher education institutions from the National Council for the Accreditation of Teacher Education (1997-2007) website. The population consisted of more than 600 institutions accredited by NCATE. Researchers used SPSS statistical software to create a simple random sample of 105 NCATE accredited institutions in the United States. The sample was not stratified by demographic, geographic, or other institutional characteristics.

Data Collection

Researchers took into account the conceptual frame through which they were investigating the literature. Data were collected by conducting Internet searches of the selected institutions public documents and assessment instruments for professional disposition assessment from each of the selected teacher education programs. Approximately 300 pages of documentation were collected from the selected institutions.

Data Analysis

Data analysis consisted of several actions. The qualitative data analysis approach as described in the work of Berkowitz (1997) was used by the researchers to guide data analysis. The researchers engaged in Berkowitz's three step process of 1) data reduction, where pertinent data were selected and condensed; 2) data display, where data were organized in a systematic and meaningful way, and 3) conclusion drawing and verification, where themes were detected and conclusions formed. The researchers made every effort to review each disposition document as a specific case. Content analysis of the collected disposition documents established five types of assessment being conducted. Teacher education programs assessed pre-service teacher dispositions by rubric, performance, test, or interview. A final category of "other" was established to identify assessments that did not fit into these other categories. Document types were further broken down by whether they focused on attitudes, beliefs, behavior, or values. This initial analysis allowed us to then code the documents according to Chickering's seven vectors:

1. Developmental competence.
2. Managing emotions.
3. Autonomy toward interdependence.
4. Developing mature interpersonal relationships.
5. Establishing identity.
6. Developing purpose.
7. Developing integrity.

The researchers then built a preliminary, coherent narrative about the overall data in relation to the research question. This type of data analysis is iterative in nature and the researchers used the constant comparative analysis method (Glaser & Strauss, 1967) to refine and improve the "working hypothesis" (Cronbach, 1975) about Chickering's vectors relative to dispositions assessments of prospective teachers.

In order to assure credibility and trustworthiness of the data, the data were reviewed by all three researchers. The first reviewer is an expert in disposition assessment and teacher education. The second reviewer researches teacher development, the instructional practice of new teachers, and works with pre-service teacher education students seeking teacher licensure. The third researcher is experienced in qualitative data collection and analysis. Ultimately, the evaluator data was analyzed for interrater reliability demonstrating that 86% of rater analysis was consistent among all three reviewers.

Results

The review of documents produced several points of similarity within the sample of disposition assessments. Documents revealed that the majority of the sample teacher education programs assessed factors such as attitudes, behaviors, beliefs, and values as the primary focus of dispositions. In the majority of cases, teacher education programs demonstrated that they were conducting the assessment using a Likert type scale or an abbreviated rubric. Less than 5% of the total sample provided descriptions of how evaluators would make their final assessment (e.g., criteria that would demonstrate a specific attitude or value held by the prospective teacher). If we assume that the inclusion of specific criteria would support the overall quality of dispositions assessment, the point raised by Diez (2006) that, "Criteria used in the assessment of dispositions should be made public and explicit" (p. 49) would be supported. Overall, from a purely procedural standpoint, the review of the dispositions documents demonstrated a lack of active attention to how different individuals may make their dispositions public. That is, the majority of the dispositions assessments were conducted as a part of class participation, with only a few programs noting any type of observational or practical application (e.g., case study, classroom observations, or reflective essay review).

Overall, the dispositions documents demonstrated little variance and/or creativity. The majority of programs identified values or principles from which their dispositions were based. These values or principles were broad in nature, and rarely tied to any broad structure such as the conceptual framework. For example, a program would identify "holding high expectations for all students" as a value or principle. However, the program did not further articulate any opportunity beyond class participation that prospective teachers could prove their adoption

and/or support of those values or principles. Using the example of „holding high expectations for all students“ the typical dispositions assessment would include a Likert scale assessment completed at the Freshman level by an instructor who never had the opportunity to observe the prospective teacher working with students and/or developing curriculum. The question then becomes one of meaningful dispositions assessment.

Review of documents continually demonstrated that there was no verbalized platform for demonstrating dispositions. A great minority of teacher education programs provided no means for students to demonstrate a type of performance as a means of assessment (e.g., reflective journal, case study review, or field-placement observations). Rather, the emphasis was placed on instructor interpretation of behavior. It is important to note that less than 15% of all documents reviewed provided any opportunity for students to question the accuracy of their dispositions assessment. In addition, there was a lacking explanation overall of how the teacher education curriculum was reshaping itself to promote the teaching and learning of professional dispositions.

Upon conclusion, the data demonstrated three predominant themes including (a) dispositions assessment as it relates to the individual, (b) attention to improving teacher education curriculum as a means to engage prospective teachers in dialogue on moral and ethical decision-making, and (c) awareness of developmental expectations of college-aged students.

Dispositions Assessment as it Relates to the Individual

The culminating lesson from the review specific to individuality was, simply, that there was little to no documented attention to the individual. There are two perspectives in which we can review the attention to the individual, specifically the individual’s behaviors. The first is through the lens of Mullin (2003) or Rike and Sharp (2008) where dispositions are demonstrated through patterns of behavior. Through this lens, it may be important within dispositions assessment to explore the reasons behind one’s behavior. Simply drawing conclusions negates the impact of individual experiences and presumes that all prospective teachers hold the same background. In this view, if you are enrolled in a teacher education program you should have shared experiences that shape your dispositions and resulting behaviors. Further, you should have processed those experiences at a level that allows your behavior to model those expected dispositions within a program.

If we move to a second lens and consider Lewin’s (1936) view of behavior as a function of a person in his/her environment then dispositions assessments that focus on the prospective teachers and not the program are incomplete. That is, if prospective teachers are products of their environment and their environment of focus is the teacher education program then we must question if it is safe to assume that the lack of professional dispositions in prospective teachers speaks to a lack of opportunity to learn those professional dispositions within programs. Ultimately we do not attend to the background of individuals as influences on behavior nor do we take into account, on a large scale, that programs must create opportunities for expected dispositions to be modeled, learned, and reflected upon (Mullin, 2003). There was a lack of focus on developing dispositions through experiences strategically embedded into curricula. Instead, it

seemed in some cases that dispositions were almost expected to appear through some type of unconscious absorption. What we refer to as the “if you say it, it will become” approach.

Attention to Improving Teacher Education Curriculum as a means to Engage Prospective Teachers in Dialogue on Moral and Ethical Decision-Making

The document review demonstrated that dispositions assessment was tied to courses or stages within specific programs, but not tied to curriculum or experiences purposefully embedded into that course and/or program. Analysis demonstrated that within the dispositions documents, curriculum was not explicitly attending to the encouragement of dialogue with peers, professionals, or instructors on issues of moral or ethical reasoning. Rather, there was little to no mention of how dispositions are developed as part of learning to teach.

In addition, dispositions assessments were conducted within existing structures of the teacher education curriculum that may or may not have been designed to establish opportunities for developing professional dispositions. Document analysis revealed that the important task of assessing someone’s dispositions (e.g., values, behavior, attitude, etc.) was absent in a substantial majority of cases and lacked any communicated criteria or training on observing dispositions. Ultimately, review of documents left us to conclude that one instructor’s interpretation of an individual’s beliefs could either support or discourage (based on opinion alone) further participation in the profession.

Data from the document review revealed that no (n=0) documents detailed or even made mention of how dispositions data would be utilized to improve the teacher education program. Similarly, few (n=7) documents articulated remediation opportunities for failed dispositions assessments and no (n=0) documents articulated any experiences that would provide specific training or coaching for the attainment of desirable dispositions.

Awareness of Developmental Expectations of College-Aged Student

Sanford (1966) proposed three developmental conditions for college students including readiness, challenge, and support. Readiness was described as a function of maturity and beneficial conditions in the environment (i.e., challenge and support). Individuals are not ready to display certain behaviors until there is an optimal dissonance of challenge and support. College student psychosocial development theory, and conceptual change theory, supports the need to experience a certain degree of challenge to their preexisting conceptions before any change in their behaviors takes place (Posner, Strike, Hewson, & Gertzog, 1982). In addition, that challenge must be supported by experiences and access to new ideas.

Applying this knowledge to dispositions assessment, we would presume that teacher education programs in some way would communicate the goals, the longitudinal vision, or purpose of the assessment. Overall, the dispositions assessments documents provided little context or goals for the assessment. Rather there was, in most cases, a list of expectations with simplistic explanations absent any deeper meaning or purpose. In addition, the dispositions documents reviewed presumed in most cases that college students, specific to level in the program, could be expected to have similar attitudes, behaviors, and beliefs. There was little to no attention to how

dispositions might develop over the course of the program. Further, the basis for most assessments were observational in nature and did not communicate any attention to how the environment was creating the opportunity for behaviors to develop as a result of participation in the program. As shown in Table 2 document analysis showed that while the more common dispositions being assessed can be aligned with Chickering's vectors, the majority of programs focused on higher level vectors that may or may not be attainable during the undergraduate experience. In the left hand column is the vector, in the right hand column is a related focus of dispositions assessment.

Overall, the table demonstrates progression of the development of specific dispositional traits. In light of what our document analysis demonstrated, the majority of points of inquiry for dispositions assessment are not attainable until the end of or subsequent to the college experience.

Discussion

Upon further investigation, we support the assessment of dispositions, however there is much room for improvement. Our concerns continue to focus on the ability of programs to communicate expected dispositions and embed those dispositions into the local experience of becoming an educator (similar to those experiences articulated by Stoddard, Braun, Dukes, & Koorland, 2009). Three questions however, must be addressed as teacher education programs continue to develop disposition assessments.

Question 1: Are teacher education programs accounting for psychosocial development of the college age students completing teacher education programs and whose professional dispositions are being assessed?

Question 2: Is there value in teacher education programs providing clear models, frameworks, assignment types, and other professional development opportunities focused on disposition assessment for instructors who might be assessing pre-professional teachers dispositions?

Question 3: Do we have a clear understanding of how teacher education programs are creating opportunities to teach appropriate dispositions and model those dispositions in applied settings? Are these opportunities embedded into the curriculum and made clear to pre-professional teachers?

Teacher education must not exclude itself from a necessary attention to the developmental stages of its students. Dispositions assessment cannot be created absent our knowledge of the development of college students as individuals (Brownlee, Puride, & Boulton-Lewis, 2001). If we use Sanford's work (1969) as a conceptual framework for developing professional dispositions in prospective teachers, we would be better able to provide an environment of support, improve the opportunities for learning dispositions through challenge, and create a system for dispositions assessment where we focus on readiness of students to learn/acquire dispositions through experience and reflection.

The problem, as shown in Table 2, is that dispositions assessments focus heavily on those vectors that are on the higher end of Chickering's stages. This may mean that the dispositions being assessed actually go against the developmental readiness of college students. If that is the case, and we want dispositions assessment to be a meaningful practice that is geared at developing purposeful professional dispositions, teacher educators may be in a position to rethink their dispositions assessment practices.

Our review of documents consistently demonstrated that dispositions assessments did not account for psychosocial development. There was little to no readiness or curricular component present, specific to guidelines or expectations beyond simply stating the obvious (e.g., diversity should be embraced). Negating attention to teaching dispositions via exploring dispositions through experiences or reflections demonstrates that teacher education programs mostly expect dispositions to be created through an undefined process. With a lack of discussion on how we expect prospective teachers to obtain certain dispositions, there is no foundation for purpose. That is, we know what dispositions we want, but we aren't yet communicating how we expect prospective teachers to obtain those dispositions.

As shown in Figure A, we argue that teacher education programs can only promote the development of dispositions and the effective assessment of those dispositions if three critical elements are attended to and connected, (1) attention to college student development, (2) professional dispositions, and (3) embedded curricular experiences that engage students in developing dispositions. Programs that model this attention will have a better foundation for dispositions assessment than those that simply state goal dispositions without attention to how those fit into developmental stages and/or the curriculum of learning to teach.

Our investigation into dispositions assessment resulted in more questions than answers. However, we believe that if we take into account the multiple roles of students (i.e., they are college students as well as prospective teachers) we will see more longitudinal success in our efforts.

Limitations and Recommendations

The review of documents as a means to establish an understanding could have been strengthened by interviews with both prospective teachers and teacher educators. In addition, the observation of how dispositions assessment occurs within programs is a critical component to which our study did not attend. Overall, the study was meant to address how college student development is considered within teacher education.

While this study treated all NCATE teacher education institutions without contextual characteristics taken into account, the researchers acknowledge that the institutional contexts of these institutions are likely to impact disposition assessment. A subsequent study that categorizes NCATE institutions by Carnegie classification, or other demographic characteristics, may yield interesting findings.

The researchers did not consider the growing number of non-traditional teacher education students and how they fit within the developmental process. In a subsequent study a comparative

analysis between traditional and nontraditional preservice teachers may find differences in the development of these students. Additionally, other demographic characteristics (e.g., rural, suburban, and urban) may provide interesting comparisons.

References

- American Council of Trustees and Alumni. (2006). *NCATE concession not enough*. Retrieved from http://www.goactablog.org/blog/archives/2006/06/ncate_concessio.html
- Berkowitz, S. (1997). Analyzing qualitative data. In J. Frechtling & L. Sharp-Westat (Eds.), *User-friendly handbook for mixed method evaluations*. Retrieved, from <http://www.nsf.gov/pubs/1997/nsf97153/start.htm>
- Brownlee, J., Puride, N. & Boulton-Lewis, G. (2001). Changing epistemological beliefs in pre-service teacher education students. *Teaching in Higher Education*, 6, 257-268.
- Chickering, A. W. (1969). *Education and identity*. San Francisco: Jossey-Bass.
- Chickering, A. W., & Reisser, L. (1993). *Education and identity* (2nd ed.). San Francisco: Jossey-Bass.
- Clark, C. (1992). Teachers as designers in self-directed professional development. In A. Hargreaves & M. Fullan (Eds.), *Understanding teacher development*, pp. 75-84. New York: Teachers College Press.
- Cochran-Smith, M., & Lytle, S. L. (1999). Relationships of knowledge and practice: Teacher learning in communities. In *Review of research in education* (Vol. 24, pp. 249-306). Washington DC: American Educational Research Association.
- Cronbach, L. J. (1975, February). Beyond the two disciplines of scientific psychology. *American Psychologist*, 30(2), 116-127.
- Damon, W. (2005, September). Personality test: The dispositional dispute in teacher preparation today, and what to do about it. *Fwd: Arresting insights in education*. Washington, DC: Thomas B. Fordham Foundation.
- Diez, M. (2006). Assessing dispositions: five principles to guide practice. In H. Suckett (Ed.) *Teacher dispositions: Building a teacher education framework of moral standards*, p. 49. Washington, DC: American Association of Colleges for Teacher Education.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: W. W. North & Company.
- Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. *Teachers College Record*, 103, 1013-1055.

- Feiman-Nemser, S., & Floden, R. (1986). The cultures of teaching. In M. Wittrock (Ed.), *Handbook of research on teaching: Third edition*, pp. 505-526. New York: Macmillan.
- Feldman, K., & Newcomb, T. (1969). *The impact of college on students*. San Francisco: Jossey-Bass.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory*. Chicago: Aldine.
- Hammerness, K., Darling-Hammond, L., Brandsford, J., Berliner, D., Cochran-Smith, M., McDonald, M., & Zeichner, K. (2005). How teachers learn and develop. In L. Darling-Hammond, & J. Brandsford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp.358-389). San Francisco: Jossey-Bass.
- Harrison J., Smithey, G., McAfee, H., & Weiner, C. (Winter 2006). Assessing candidate disposition for admission into teacher education: Can just anyone teach? *Action in Teacher Education*, 27, 72-80.
- Holland, J. L. (1973). *Making vocational choices: A theory of careers*. Englewood Cliffs, NJ: Prentice-Hall.
- Johnson, D., Johnson, B., Farenga, S., & Ness, D. (2005). *Trivializing teacher education: The accreditation squeeze*. Lanham, MD: Rowan & Littlefield.
- Katz, L., & Raths, J. (1986). *Dispositional goals for teacher education: Problems of identification and assessment*. ERIC Document Reproduction Services, ED272470.
- Knefelkamp, L., Widick, C., & Parker, C. A. (Eds.). (1978). *New directions for student services: Applying new developmental findings*. San Francisco: Jossey-Bass.
- Leo, J. (2005, October 16). Class(room) warriors. *U.S. News & World Report*. Retrieved from <http://www.usnews.com/usnews/opinion/articles/051024/24john.htm>
- Lewin, K. (1936). *Principles of topological psychology*. New York: McGraw-Hill.
- Mullin, D. (2003). *Developing a framework for the assessment for assessment of teacher candidate dispositions*. ERIC Document Reproduction Services, ED479255
- National Council for the Accreditation of Teacher Education. (1997-2007). *NCATE schools, colleges, and departments of education*. Retrieved from <http://www.ncate.org/public/listofaccredinst.asp>
- National Council for Accreditation of Teacher Education (2000). *Professional standards for the accreditation of schools, colleges, and departments of education*. Washington, DC: Author.

- National Council for Accreditation of Teacher Education, (2006). *Professional standards for the accreditation of schools, colleges, and departments of education*. Washington, DC: Author.
- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass.
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research* (2nd ed.). San Francisco: Jossey-Bass.
- Perry, W. G. (1970). *Forms of intellectual and ethical development in the college years*. New York: Holt, Rinehart, & Winston.
- Posner, G. J., Strike, K.A., Hewson, P.W, & Gertzog, W.A. (1982). Toward a theory of conceptual change. *Science Education*, 66, 211-227.
- Raths, J. (1999, November 15). *Letter to John Oehler, chair of the AACTE committee on accreditation*. Retrieved from <http://udel.edu/educ/raths/ncatecomments.html>
- Rike, C., & Sharp, K. (2008). Assessing preservice teachers' dispositions: A critical dimension of professional preparation. *Childhood Education*, 84(3), 150-153.
- Sanford, N. (1966). *Self and society*. New York: Atherton Press.
- Shulman, L. S., & Shulman, J. (2004). How and what teachers learn: A shifting perspective. *Journal of Curriculum Studies*, 36, 257-271.
- Sockett, H. (Ed.) (2006). *Teacher dispositions: Building a teacher education framework of moral standards*, 5. Washington, DC: American Association of Colleges for Teacher Education.
- Stoddard, K., Braun, B., Dukes, L., Koorland, M. (2009). Building professional dispositions in pre-service special educators: Assessment and instructional tactics. *Journal of University Teaching and Learning Practice*, 4(1), 28-39.
- Taylor, R., & Wasicsko, M. (2000). The dispositions to teach. Retrieved from <http://www.educatordispositions.org/dispositions/The%20Dispositions%20to%20Teach.pdf>
- Thorton, H. (2006). Dispositions in action: Do dispositions make a difference in practice? *Teacher Education Quarterly*, 34(2), 53-68.
- Villegas, A. (2007). Dispositions in Teacher Education. *Journal of Teacher Education*, 58(5), 370-380.

Wise, A. (2006). Preface. In H. Suckett (Ed.) *Teacher dispositions: Building a teacher education framework of moral standards* (p. 5). Washington, DC: American Association of Colleges for Teacher Education.

Table 1.

Conflicts within Chickering's Vectors

Vector	Conflicts
1: Developing intellectual, physical, and interpersonal competence. (Typically at Freshman level)	Questioning intellectual abilities, (Can I really do this? Can I go to college?). Developing physical competence, (Am I in shape?). Developing interpersonal confidence, (Will anyone like me? Will I find new friends?).
2: Focus on managing one's emotions. (Typically at Freshman level)	Learning to experience different kinds of emotions. Process experiences in a healthy way. Manage major impulses including learning when aggression and sexual activity is appropriate.
3: Recognize and accept the importance of moving through autonomy toward interdependence. (Typically at Freshman level)	Learning how to set limits. Reliance is transferred from parents/families to peers. Begin to think about personal goals, not parental pressure. Understand the interdependence of relationships with peers and families. Focus on learning to do things for ourselves, as opposed to having the security of someone else completing tasks for us.
4: Development of mature interpersonal relationships. (Typically developed throughout the undergraduate experience)	Exposure to different lifestyles. Developing a tolerance for others, and acceptance of individuals based on their own right rather than stereotypes. Creates a means to show empathy and understanding towards others.
5: Establishment of an identity. (Follows vector four, may happen during the undergraduate experience)	Development of an "inner sense" that frees us from anxiety and stress. Seeking out a meaningful achievement. Sense of identity frees some level of dependency on interpersonal relationships.
6: Develop purpose by clarifying interests and alternatives. (Follows vector five, may not happen during the undergraduate experience)	Clarifies interests and explores alternatives. Makes decisions and sets initial direction for life.
7: Developing integrity. (Follows vector six, may not happen during the undergraduate experience)	Values are defined and there have been enough individual experiences to allow for a sense of direction and purpose. During this vector individuals try to develop a sense of consistency between values and behavior.

Table 2.

Chickering's Vectors as Aligned with Current Dispositions Assessment Documents

Vector	<i>Attention within Current Dispositions Documents</i>
1: Developing intellectual, physical, and interpersonal competence.	Issues related to physical appearance. Works well with others. Attains appropriate grades.
2: Focus on managing one's emotions.	Expectation of being honest and solving conflict professionally. Able to reflect on practice and/or experiences related to becoming a teacher.
3: Recognize and accept the importance of moving through autonomy toward interdependence.	Takes responsibility for choices and behaviors. Understands the meaning of expectations set forth by program. Reflects on the importance of community and family in the role of the teacher.
4: Development of mature interpersonal relationships.	Understands how to work in teams. Can respond to the needs of others purposefully.
5: Establishment of an identity.	Acceptance of difference and demonstration of tolerance and appreciation for diversity. Value of all students (including those with disabilities). Reflection depicts attention to all learners.
6: Develop purpose by clarifying interests and alternatives.	Commitment to life-long learning. Creates a professional growth plan to continue development. Make professional decisions based on experience.
7: Developing integrity.	Enthusiastic about profession. Behaviors exemplify professional attitude and belief. Shows a value of learning. Demonstrates values that are tied to the profession.

Figure A.
Finding the Connection

