Disposition Of Teachers: A New Discussion For the 21st Century
Edward Williamson, Ph.D. and Jayne White, Ed.D.
Drury University

Introduction

What is teacher disposition, or the disposition to teach? How can it be measured?

Should it be measured? Why is it important for teacher education faculty? These

are questions that will be addressed by this paper. According to A. Kambon

(personal communication, April 17,2002), president of Visionary Leaders

Institute, disposition is a thought process that involves more than what happens in

the classroom or school building. Kambon suggests that educators go beyond the

classroom into the "orchard". Since it is commonly believed that the apple doesn't

fall very far away from the tree in reference to intelligence, Kambon states that

we (educators) must get out into the orchard to try and produce better fruit.

"Thinking dispositions are tendencies or leanings toward particular patterns of

intellectual behavior, such as the tendencies to be reflective, to seek reasons, to be

intellectually strategic, or to be intellectually adventurous" Perkins, Jay, and

Tishman cited in Silver, Strong, and Perini 2000, p.129).

In the field of geology the identification of rocks and minerals is paramount.

Some of the properties of rocks and minerals that allow geologists to identify one

rock from another are: hardness, luster, cleavage, and streak. For minerals, one

property that aids in identity is called tenacity. Tenacity refers to a mineral's

physical reaction to stresses such as crushing, bending, breaking, or tearing.

Tenacity is composed of several different reactions to various stresses; it is

possible for a mineral to have more than one form of tenacity (Friedman, 1999).

Some of the different forms of tenacity are: brittle (if after hammering a mineral the

result is a powder or small crumbs); malleable (if a mineral can be flattened by pounding

with a hammer); flexible but inelastic (any mineral that can be bent, but remains in the

new position after bending); and flexible and elastic (any mineral that can be bent and

then spring back to the original position).

Using these mineralogical definitions we attempt to identify four different types of

       teachers each with a unique disposition:

-     The Brittle Teacher (falls to pieces when hit)

-     The Malleable Teacher (flattened, shaped into something else)

-     The Inelastic Teacher (bent into new shape)

-     The Elastic Teacher (bent, but returns to original shape)
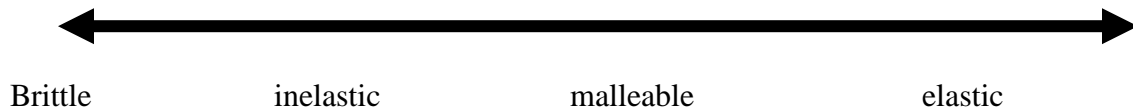
Figure 1: Continuum of teacher dispositions

  Brittle   inelastic   malleable   elastic

       Figure 1 provides a beginning point for a new conversation about teacher

       disposition. In each person's experience they have encountered individuals who

       possessed one or more of the dispositions listed. This is equally true of those in

       the teaching profession. As a part of the maturing process inherent to each

       individual they manifest varying dispositions indicated above. Admitting that this

       is true we proceed to a discussion of teacher disposition.

Theoretical foundations underlying a discussion of teacher disposition

       In order to discuss teacher disposition it is necessary to describe several

       underlying theoretical foundations including aptitudes, heuristic methods,

metacognition, and affective components. More in-depth discussions will be made on the affective domain through Bloom's Taxonomy, Krathwohl's Taxonomy for Affective Processes, Gardner's Multiple Intelligences Theory; of emotional intelligence through the findings of Salovey and Goleman; Comer's Developmental Pathways Model; and Brain-Based Learning.

De Corte (1995) describes aptitudes involved in skilled learning and thinking. These aptitudes include the following; flexible application of a well-organized, domain-specific knowledge base, involving facts, symbols, conventions, definitions, formulas, algorithms, concepts, and rules which constitute the substance of a subject matter field (Glaser, 1991).

Heuristic methods, systematic search strategies for problem analysis and transformation, such as carefully analyzing a problem specifying the knowns and the unknowns, decomposing a problem into subgoals, finding an easier related or analogous problem, working backward from the intended goal or solution were described by Schoenfeld (1992).

Metacognitive knowledge and skills involving knowledge concerning one's own cognitive functioning, on the one hand, and activities relating to the self-monitoring and regulation of one's cognitive process; monitoring an ongoing solution process; evaluating an answer or solution; and reflecting on one's learning and problem-solving activities (Brown, Bransford, Ferrara, & Campione, 1983).

Affective components, involving beliefs, attitudes, and emotions which reflect the whole

range of affective reactions to learning, and vary in the degree of affect involved,

namely from rather cold beliefs to hot for emotions (De Corte, 1995, pp. 97-98).

De Corte concludes from his literature review that expert performance is characterized by

the integration and interaction of these aptitudes. Rather than using the term

"aptitudes", Anastasi (1980, 1983) referred to *developed (or developing) abilities*

broader term or context than the acquisition of a skill, competence, or expertise

(Mentkowski & Doherty, 1983; 1984a, 1984b; Mentkowski & Rogers, 1993).

Mentkowski, Loacker, & O'Brien, (1998, p. 13-15) described these *abilities as* complex

combinations of motivations, dispositions, attitudes, values, strategies, behaviors,

self-perceptions, and knowledge of concepts and procedures: "These

combinations are dynamic and interactive, and they can be acquired and

developed both through education and experience. *Abilities* become a cause of

effective performance when these components are integrated. A complex *ability*

cannot be observed directly; it must be inferred from performance…' *Ability*' is a

concept that communicates, because it is also experienced. One can

conceptualize *abilities* and also experience having or using one's *abilities* in

situations." Abilities can be complex combinations of dispositions, attitudes,

values, behaviors, or self-perceptions. According to Mentkowski & Associates

(2000, p.10), "These combinations are dynamic and interactive, and they can be

acquired and developed both through education and experience.

Mentkowski suggests that these *abilities* may to some degree, be inherent in the students

by the time they reach college. Perkins (1995, cited in Mentkowski and

Associates, 2000) characterizes reflective intelligence as "knowing your way around a very broad and critically important realm; the domain of thinking." This includes broad strategies for approaching problems and explicitly suggests that positive attitudes and dispositions toward thinking are part of what makes up competence. Perkins argues forcefully that reflective intelligence can be developed. (Mentkowski & Assoc., 2000, p. 148).

A review of recent research suggests that interpersonal abilities have considerable generality and can contribute substantially to general competence (Boyatzis, 1982; Bray, Campbell, & Grant, 1974; DeBack & Mentkowski, 1986; Howard & Bray, 1988; Klemp & McClelland, 1986; Spencer & Spencer, 1993; Van Scotter & Motowidlo, 1996). Cognitively oriented theories tend to overlook the role of some human motives and emotions (Wyer & Srull, 1989). Sometimes performers themselves may overlook these critical interpersonal abilities, especially when specific skills distinguish their professional expertise, i.e. pilots who undervalued interpersonal abilities, even though inadequate team coordination, communication and leadership are among the most frequent causes of modern aviation accidents (Helmreich, Wiener, & Kanki, 1993 p. 148

Affective Domain

To what extent do different kinds of thinking affect teaching performance? Clearly, cognitive skills are important, but cognition does not occur in a vacuum. Many in the field of educational psychology agree there is a relationship between teachers' observable behaviors and unobservable factors that influence teacher behavior. While overt actions and behaviors are quantifiable, emotions, attitudes,

interests, and reflective abilities are more intangible and cannot be measured directly; they can only be inferred.

Among the general purposes of education, affective learning, having to do with attitudes, emotions, feelings, values, attitudes, predispositions, and morals is one of the most important but controversial, and perhaps, the most problematic of all school issues.

Virtually all educators agree that teacher attitudes are an important dimension in the teaching process. Affect has a direct effect on teacher behavior impacting how they view themselves and interact with others. A teacher's affective skills, or the lack thereof, permeate both the curricular and instructional processes of the classroom. It is imperative that teachers demonstrate dispositions necessary to help all students learn. They must display attitudes that foster learning and genuine human relationships.

As might be expected, designing a framework for "measuring" affect is difficult. A number of theorists have addressed the importance of affect, attitude, emotion, and disposition, in predicting success. Although the language varies among these experts, their thesis is consistent, these qualities do matter.

One might ask, how future teachers can develop children maximally without

having the skills necessary to identify and cope with their multiple needs? How can they possibly impact children's attitudes, coping skills, emotions and unless they can also model these skills?

Strong (2002) describes "the teacher as a person" (p. 12). He contends that.

although numerous studies refer to instructional and classroom management

strategies as being key to teacher effectiveness, many interview and survey

responses regarding effective teaching emphasize the teacher's affective

characteristics more than pedagogical practice.

Peart and Campbell (1999) found that teacher effectiveness was ranked fourth in

factors affecting achievement of African American students. Other factors

included cultural differences, minority status and poverty. Four areas were

identified as important for teachers to address in order to promote student

achievement: interpersonal skills, instructional skills, motivational leadership, and

racial impartiality.

Bloom

Benjamin Bloom, in 1956, created a classification system organizing objectives

into a hierarchical framework of behaviors that are more complex or internalized

than the previous category. The categories were arranged along a continuum

from simple to more complex. The major categories were: knowledge,

comprehension, applications, analysis, synthesis, and evaluation.

Krathwohl

Krathwohl, Bloom, Masia (1964) suggested that there were levels or stages of behaviors

in the affective domain referred to as degrees of internalization. They referred to

internalization as "the process by which the phenomena or value successively and

pervasively becomes a part of the individual" (p. 28).

It takes considerable observation to discern whether or not any affective skills have been

   attained. Krathwohl, Bloom & Masia, (1956, 1964) have been credited with

   developing a meaningful taxonomy to identify different levels of affective

   behaviors. The taxonomy was originally developed to organize levels of

   commitment.

The levels of the Affective Domain were defined as follows:

Receiving: awareness of particular feelings, attitudes or predispositions; aware and

   willing to pay attention;

Responding: reacting and gaining some satisfaction from particular feelings, attitudes, or

   predispositions;

Valuing: accepting and/or choosing to make a commitment that involves particular

   feelings, attitudes, or predispositions;

Organizing: formulating a personal set of values that involves particular feelings,

   attitudes, or dispositions. To establish a value system;

Characterizing: living and being judged by one's consistent set of personal values that

   involves specific feelings, attitudes, or predispositions; to live one's beliefs;

The Krathwohl Taxonomy for Affective Processes can be used to encourage the

   development of positive attitudes, interests, and appreciations that should

   accompany teaching and learning.

Gardner

   Gardner (1983) proposed that human beings have not one, but seven intelligences or

ways of knowing. Gardner's new concept of intelligence expanded earlier thinking about human abilities.

Silver, Strong, & Perini (2000) explain that his method explores ways particular cultures value individuals. Gardner defined intelligence as the ability to: solve problems that one encounters in real life, generate new problems to solve, and make something or offer a service that is valued within one's culture.

Gardner then divided the intelligences into seven categories, later adding an eighth (1995, 1999). He included the two standard types, verbal and mathematical-logical, and added spatial, bodily-kinesthetic, musical as well as the "personal intelligences": interpersonal and intrapersonal (1995, p. 38), in 1999, he added the naturalist category.

Gardner summarizes the personal intelligences as follows: interpersonal intelligence is the ability to understand other people: what motivates them, how they work, how to work cooperatively with them. Successful salespeople, politicians, teachers, clinicians, and religious leaders are all likely to be individuals with high degrees of interpersonal intelligence. Intrapersonal intelligence is a correlative ability, turned inward. It is a capacity to form an accurate, veridical model of oneself and to be able to use that model to operate effectively in life (1993, p. 9).

Gardner went on to discuss the interplay of emotions and master in managing the personal intelligences (Goleman, 1995). He recognized the importance of these emotional and relational abilities not only on cognition, but on life in general. He states that:

Many people with IQs of 160 work for people with IQs of 100, if the former have

poor intrapersonal intelligence and the latter have a high one. And in the

day-to-day world no intelligence is more important than the interpersonal.

If you don't have it, you'll make poor choices about who to marry, what

job to take, and so on. We need to train children in the personal

intelligences in school. (p. 42)

Again, it stands to reason, that teachers must be capable of: (1) modeling the

personal intelligences; (2) training children in developing skills in those areas.

Emotional Intelligence

An emotional competence is a learned capability based on emotional intelligence that

results in outstanding performance at work. The emotional intelligence capacities

are: Independent: Each makes a unique contribution to job performance;

Interdependent: Draws to some extent on others with strong interactions; and

Hierarchical: The emotional intelligence capacities build upon one another. For

example, self-awareness is crucial for self-regulation and empathy; self-regulation

and self-awareness contribute to motivation; all the first four are at work in social

skills.

Salovey

In 1990, Salovey and Mayer broadened the view of intelligence by referring to

what it takes to lead a full, complete and successful life: emotional intelligence.

Their definition expanded Gardner's personal intelligences into five domains: (1)

Knowing one's emotions; (2) managing emotions; (3) motivating oneself; (4)

recognizing emotions in others; (5) handling relationships. Mayer, (in Jensen,

1998) suggested that "emotions convey information, just like data or logic" (p.

72). Psychology has been too atomized in the sense that it divided intelligence,

motor behavior, and emotions into different areas, rather than considering the

inseparable links among them (Marquis 1996, p. B-2).

<u>Goleman</u>

Goleman (1998) stated:

The rules for work are changing. We're being judged by a new yardstick; not just

by how smart we are, or by our training and expertise, but also by how

well we handle each other and ourselves. The new rules have little to do

with what we were told was important in school; academic abilities are

largely irrelevant to this standard. The new measure takes for granted

having enough intellectual ability and technical know-how to do our jobs;

it focuses instead on personal qualities, such as initiative and empathy,

adaptability and persuasiveness. The research distills with unprecedented

precision which qualities mark a star performer. And it demonstrates

which human abilities make up the greater part of the ingredients for

excellence at work – most especially for leadership. (pp. 3-4)

In 1995, Goleman published new work raising awareness of the role of emotions in

learning. He quantified the characteristics of emotional intelligence allowing for

measurement in an area that had been previously not possible. Performance data

from business, education, and health related fields resulted in a body of study

called emotional intelligence (EQ). This research attempted to explain why,

despite equal intellectual capacity, education, or experience, some people excel while others fall behind.

Goleman defined emotional intelligence as the dimension of intelligence responsible for our ability to manage ourselves and our relationships with others. EQ allows people to recognize and move toward opportunities and to collaborate and communicate with others. He further suggested it is no accident that certain competencies are found repeatedly in high performing individuals including teachers.

Goleman discussed the role of the community in shaping school and classroom culture, suggesting that school should be a place where students feel safe and valued, and are capable of developing relationships with classmates, teachers, and other school personnel. According to this theory, success in the adult world depends on cognitive and emotional competence. Classroom teachers play a very important role in creating such a positive learning environment.

Goleman contends that emotional competence is central to effective leadership. He suggests that "interpersonal ineptitude in leaders lowers everyone's performance: It wastes time, creates acrimony, corrodes motivation and commitment, builds hostility and apathy (p. 32)". Robert Worden, director of business research at Eastman Kodak, agrees, suggesting that the ability to relate, speak up and be heard and be self-confident are the kinds of abilities that make the critical difference. He cites other qualities necessary for success: presentation skills, energetic and enthusiastic, easy to work with, diplomatic, inspirational, and action-oriented. He says, "Half the skills you need are technical, but the other

half are in the softer domain, emotional intelligence. And it's amazing how it's the latter that distinguishes the top performers (cited in Goleman, 1998, p. 33)."

Worden's observation is borne out by Goleman's research of hundreds of companies. He conducted a systematic study of the U.S. government, (more than two million employees). He found that "the higher the level of the job, the less important technical skills and cognitive abilities were, and the more important competence in emotional intelligence became (p. 33)". Further analysis of the data revealed "technical superiority played no role in leadership success. At top executive levels, everyone needs cognitive skills, to a certain extent, but being better at them does not make a star leader" (Goleman, 1998, p. 33).

Rather, emotional competence made the crucial difference between mediocre leaders and the best. Top ranking employees showed significantly greater strengths in a range of emotional competencies, among them influence, team leadership, political awareness, self-confidence, and achievement drive. On average, close to 90% of their success in leadership was attributable to emotional intelligence. Goleman summarizes saying, "For star performance in all jobs, in every field, emotional competence is twice as important as purely cognitive abilities…emotional competence accounts for virtually the entire advantage" (Goleman, 1998, p.33).

To sum up: For star performance in all jobs, in every field, emotional competence is twice as important as purely cognitive abilities. For success at the highest levels, in leadership positions, emotional competence accounts for virtually the entire advantage.

Developmental pathways model

Dr. James Comer's model of educational reform is based on the assumption that

meaningful school change results from the process of relationships and

community building. Emphasis is placed on building positive relationships

between and among relevant adults and children. In Comer's model, the school is

a social system. If this social system is not working well, children do not develop

well along the six developmental pathways: social, cognitive, physical,

psychological, language, and moral/ethical. Comer believes that positive

interpersonal relationships set the stage for addressing, or even preventing serious

and deep-rooted developmental problems. Comer agrees with Goleman in

referring to the role of the community in shaping the culture of the

school/classroom. He, too, contends that school should be a place where students

feel safe and valued, or maximal development will not take place (1996).

According to Comer (1996):

All children are at risk today. More homes are broken, more are led by single

mothers, more have two parents away at work. For children to develop

healthily, well-functioning adults must be available and attentive to them at all

times. In the SDP school, the adults work creatively and enthusiastically with

each other and with the children, setting a powerful model for the children's

attitudes toward school, society, and the future. (p. 42)

Comer believes it is the teacher's responsibility to create a receptive climate for learning

that reflects the developmental needs of children. He further contends that

preservice teacher preparation programs too often emphasize only three of the

developmental pathways – language, cognitive, and physical. Yet, teachers

encounter, on a daily basis children needing support and guidance along the "soft pathways" – social, psychological, & moral/ethical – because of the multitude of societal and familial issues they face (1996).

<u>Brain-based research</u>

Institutions of learning no longer need to wonder what factors make an effective teacher. More than 25 years of research in the neurological field, as well as research regarding connections between emotions and intelligence have provided insights for predicting success in the workplace. It is now possible to better understand why, despite equal cognitive abilities, training, and experiences, some people excel while others do not (Lynn, 2002).

The importance of social/emotional development for academic learning has been strengthened by recent insights from the field of neurological sciences, highlighted by Jensen, (1996); Demasio, (1994); Sylwester (1995); and Sousa, (1998).

Sylwester (1995) refers to ways emotions relate to improved academic performance:

We know emotion is very important to the educative process because it drives attention, which drives learning and memory. We've never really understood emotion, however, and so don't know how to regulate it in school – beyond defining too much or too little of it as misbehavior and relegating most of it to the arts, PE, recess, and the extracurricular program… By separating emotion from logic and reason in the classroom, we've simplified school management and evaluation, but we've also then separated two sides of one coin – and lost something important in the

process. It's impossible to separate emotion from the other important

activities of life. Don't try. (p. 72-75)

If learning is to take place, we must get students emotionally engaged. By the same

measure, if preservice teachers become emotionally engaged, if they have the

skills, attitudes, and values of competent emotional development, they will be

more capable of managing the many needs of children in their classrooms.

Elias suggests that we must attend systematically to making social/emotional education

more than a fad in our schools. In order to do this, we must surround our children

with knowledgeable, responsible, and caring adults.   They ask that "educators

rethink the ways schools have addressed or failed to address the development of

the whole child, and to do so with an eye toward models that have demonstrated

success" (Elias et al., 1997, p. 12).

Narrowing the focus: Teacher disposition

Educational researchers and their ideas about teacher disposition

As preservice teacher educators, we are required by state and national

accreditation agencies to determine exactly what qualities, characteristics,

dispositions, etc. comprise an effective teacher. We are also now being asked to

quantify "soft skills" including attitudes, disposition, empathy, emotional control,

and self-awareness.   The question to be answered is, how do we quantify

disposition?

For preservice teacher educators, the message is clear – we must be more

intentional in screening and preparing people choosing the field of teaching as a

career. The challenge is to foster student development and performance as well as

learning. Our purpose is to explore how students integrate learning, development, and performance, and how such integrated learning is shaped so that it will endure.

Our purpose here is to contribute to a discussion about redefining the meaning of the undergraduate degree in teacher education so that three traditions in higher education – liberal arts, education in the professions, and moral character – are joined.

Connelly and Clandinin (1995) refer to "personal practical knowledge". This is a prearticulated sense of teaching and includes terms as beliefs, values, attitudes, biases, and disposition. According to Connelly and Clandinin personal practical knowledge is developed in a knowledge landscape unique to each person's experiences, it develops as a result of relationships among people, places, and things and exists as both an intellectual and moral landscape (p. 5).

Disposition is manifested in a social context, in similar fashion to the personal practical knowledge described by Connelly and Clandinin. As they noted, "We believe that teachers' professional lives take shape in and on a landscape of morally oriented professional knowledge" and "We also believe that this professional knowledge landscape is in intimate interaction with what one might call landscapes of the personal, outside the professional setting" (1995, p. 27). We propose that teacher disposition, like "morally oriented professional knowledge" takes shape in a unique landscape, a socially oriented relationship. Clandinin and Connelly also refer to epistemological and moral dilemmas that fill the professional landscape (1995, p. 67).

Putnam and Burke (1992) identified four dispositions that must be possessed by

classroom teachers who wish to develop a classroom learning community. These

dispositions were: instructional leadership (motivating others to collaborate in

shared activities); a developmental perspective (viewing everyone in the learning

community as being somewhere on a continuum of personal development); a

cooperative disposition (teaching the skills of cooperation and allowing members

of the learning community to internalize cooperative norms); and a reflective

orientation (keeping an open mind concerning cognition and behavior).

Attempts to define teacher disposition

NCATE (National Council for Accreditation of Teacher Education) defines

disposition as, "The values, commitments, and professional ethics that influence

behaviors toward students, families, colleagues, and communities and affect

student learning, motivation, and development as well as the educator's 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" (Professional Standards, 2001).

The Interstate New Teacher Assessment and Support Consortium (INTASC) has

developed a core of ten standards to address the knowledge, dispositions, and

performances of teachers. While none of the ten standards directly mentions

disposition, each of the standards is measured through students' knowledge,

dispositions, and performances. Each standard has a breakdown of the types of

outcomes desired in these three areas. The following terms and descriptors indicate how disposition would be assessed by INTASC: realizes, seeks, appreciates, conveys, has enthusiasm, sees connections, committed, engages in professional discourse, shows respect for diverse talents, disposed, believes, persists, values, is sensitive, takes responsibility, understands, considers, recognizes, encourages, thoughtful, responsive listener, always be open, willing to give and receive help, concerned, willing to consult.

Examples of current attempts to measure pre-service teacher disposition

The University of Delaware has incorporated disposition into core outcomes for all candidates in professional education programs. While also agreeing with the performance standards developed by INTASC that use the exemplars of modeling and reflection to define disposition, the University specifically requires education graduates to, "Demonstrate a disposition to work as partners with students, families, other professionals and the wider community to provide a supportive, safe, caring learning environment to optimize every learner's educational attainment" (www.udel.edu/teachered/policies/concfram.html). This university uses such words as safety, caring, and supportive to define disposition.

The University of Delaware website also includes forms allowing for the evaluation of teacher education candidate dispositions. A form is provided for the classroom teacher, site coordinator, or university supervisor to evaluate the student teacher on ten different items: attendance, punctuality, diversity, reliability, appearance, interaction with students, response to feedback, commitment to the profession, willingness to collaborate/partner with others, and

attitude toward students as learners (www.udel.edu/teachered/forms/form2.html).

A second form is provided for the classroom teacher, site coordinator, or

university supervisor to indicate positive or negative attributes for each of the ten

items (www.udel.edu/teachered/forms/form1.html).

Penn State University has created a model for teacher education that reflects the

interrelationships between academic programs and research, standards, and

practice. Comprised of five elements, this model is built on previous work done

by NCATE, INTASC, and NBPTS (National Board for Professional Teaching

Standards). The first element, Educators are Life-Long Learners, contains the

expectation that Penn State educators will display a disposition toward life-long

learning and will be disposed to seek professional development opportunities to

deepen their own discipline and pedagogical understanding

(www.ed.psu/general/ncate/framework.htm).

Governors State University, located in University Park, IL has developed the most

comprehensive definition of disposition yet reviewed. They utilize the definition

of disposition proposed by Katz (1993) which refers to "a tendency to exhibit

frequently, consciously, and voluntarily a pattern of behavior that is directed to a

broad goal". With this definition in mind, the university believes that evaluation

of future teachers must include not only knowledge and skills, but dispositions as

well. The faculty is responsible for assessing the dispositions displayed as the

student confronts problems, works with children and other adults, and pursues

their own development.

The University's website (www.ecnet.net/users/gsunow/catalog/teach/cert.html)

gives the following areas in which students are assessed to determine the extent to which

they:

- Seek to excite and expand students' learning as well as their own;
- Seek to explore their subject matters far beyond the level of mere competence;
- Understand and use a variety of teaching strategies;
- Believe that all children can learn and implement supportive, structured behaviors;
- Are dedicated lifelong learners;
- Seek, embrace, and celebrate human diversity;
- Exhibit academic integrity and high ethical standards;
- Employ technology as a tool for teaching/learning;
- Pursue knowledge of best practices and innovations that effectively respond to educational challenges;
- Seek to understand and interact with their communities; and
- Value and engage in self-reflection and assessment.

Non-tangible words like seek, understand, believe, dedicated, embrace, pursue and

celebrate consistently appear in examples of what educational institutions are

looking for with regard to disposition. How can these terms be measured? To their

credit, Governors State University does include the following tangible descriptors:

exhibit, employ, interact, and engage, terms which can be measured.

National learned societies' expectations for measuring pre-service teacher

disposition

The National Council for Teachers of Mathematics has issued their Principles and

Standards for School Mathematics. In this document, the various Standards are

addressed, including Evaluation of Teaching: Standard 6: Promoting

Mathematical Disposition. This Standard requires the assessment of a teacher's

fostering of students' mathematical dispositions. The teacher should "model a

disposition to do mathematics" (http://standards-

e.nctm.org/previous/ProfStds/EvTeachM6.htm).

The National Council for the Social Studies has published their teacher standards,

including Performance Example 4, Focus: Student Teaching performance in

Terms of Social Studies Standards. This standard requires that the cooperating

teacher and university supervisor for each student teacher cooperatively complete

two evaluation instruments. One instrument assesses generic pedagogical aspects

of teaching while the other assesses student performance in relation to each of the

ten thematic standards developed by NCSS. For each theme the cooperating

teacher and university supervisor assess the student teacher's performance on

three criteria, including, "the student teacher's disposition toward teaching each

theme—1 (highly negative) to 5 (highly positive). Ratings of 2.0 or lower are

considered to be unacceptable

(www.ncss.org/standards/teachers/performance4.html).

The National Science Teachers Association (1998) published their Standards for

Science Teacher Preparation. In this document, NSTA encouraged pre-service

teacher preparation programs to create "a community of diverse student learners

who can construct meaning from science experiences and possess a disposition

for further inquiry and learning" (p. 23). Their recommendation was that

"Candidates should exhibit dispositions allowing them to work effectively with

students from a variety of racial, ethnic, religious and social backgrounds…" (p.

26).

The National Council of Teachers of English

(http://www.ncte.org/standards/standards.shtml) while not specifically referring to

disposition in their list of standards nevertheless encourages students to "develop

an understanding of and respect for diversity in language use, patterns, and

dialects across cultures, ethnic groups, geographic regions, and social roles"

(Standard 9).

<u>The difficulty of quantifying pre-service teacher disposition</u>

As demonstrated through the review of literature and examples of current

attempts to quantify pre-service teacher disposition, educators are confronted by

the need to measure disposition. However, educators face a difficult task in

attempting to quantify disposition. There are several reasons for the current

difficulty. First, the need for identification and quantification of pre-service

teacher disposition is of recent origin. NCATE has just begun requiring its

accredited institutions to document teacher disposition. Second, there is no

national consensus through the literature, current attempts to quantify teacher

disposition, or guidelines from the national learned societies relative to this issue.

Third, each state is responsible for guaranteeing the integrity and qualifications of

new teachers. This has resulted in fifty different routes to teacher certification.

Finally, there are tremendous differences in the approaches and quality of the

various teacher education institutions in the United States. Some institutions are

accredited by NCATE, others have no desire to be so accredited. Some

institutions are state supported public colleges and universities; others are small,

liberal arts colleges and universities.

Most attempts to measure disposition appear to be stop-gap measures designed to generate a listing of descriptors without an examination of the underlying educational theory. What is needed is an approach that develops a comprehensive assessment of pre-service teacher disposition that is based upon current educational theory and practice.

Identification of essential pre-service disposition descriptors

The authors have identified the following descriptors as essential for quantifying pre-service teacher disposition at Drury University: relationships with others, reliability, willingness to collaborate, reflective practice (including self-assessment), personal appearance, and teaching (including differentiation). These essential descriptors were identified after an extensive review of educational theories, learned society expectations, NCATE standards, and current examples of disposition descriptors from colleges and universities.

Educational theorists whose work formed the basis for these essential descriptors included De Corte, Mentkowski, Vallacher and Wegner, Perkins, Boyatzi, Spencer and Spencer, Sternberg and Horvath, and Goleman.

To help educators implement the coming quantification of pre-service teacher disposition the authors have developed a paradigm designed to show how pre-service teachers progress through stages while developing their own personal disposition.

For each of the six essential descriptors, the student teacher will do a self-evaluation indicating the level of sensitivity reached. The supervising professor will also evaluate the student using the same terms and levels. Ideally, this

process should take place during the following stages of the pre-service teacher's education: 1) at the time of admittance to the teacher education program; 2) at the time of admittance to student teaching; and 3) at the conclusion of the student teaching experience.

<u>**A new discussion for pre-service teacher dispositions**</u>

What are teacher dispositions?   Can we objectively quantify or measure attitudes or dispositions?   How do we assess teacher dispositions? Can dispositions be "changed?" This section will present the case for a new definition of teacher disposition, as well as a new instrument for quantification.

We (at Drury) have made several attempts to define teacher disposition because we believe teacher disposition and attitude impact student learning. We also believe it is our job to assist our students in their growth process as preservice teachers – regarding knowledge and skill development, problem analysis, and in affective development involving values, beliefs, dispositions, attitudes and emotions.

We tend to think of our students as representing a continuum of growth through stages of sensitivities (see figure 2 below) we can get some idea of the developmental growth process experienced by pre-service teachers. Beginning with their first field experiences and foundational education courses, progressing through the methods courses, and culminating in their student teaching experience each teacher would go through the full range of dispositions on the continuum

If we accept the contention of Clandinin and Connelly (1995) that the professional landscape is filled with epistemological and moral dilemmas and relate this to our belief that prospective teachers pass through the continuum of dispositions we can

readily see that the dilemmas influence future teacher disposition. This is reinforced by the findings of Perkins, Jay, and Tishman described below.

Perkins, Jay and Tishman (cited in Silver, Strong, and Perini, 2000) claimed that critical thinking dispositions emerged as a result of a sensitivity to certain types of behavior. These sensitivities were then practiced by the individual resulting in the development of an inclination or comfort in using these types of behavior. As the inclination becomes more refined, or sophisticated, the individual develops the ability to apply the behavior in a variety of contexts. This progression is illustrated as follows:

Figure 2: Progression of sensitivities

Sensitivity   inclination   ability   application (varied contexts)

Silver, Strong, and Perini (2000) show that the development of dispositions depends on factors such as, validation, encouragement, and training (education).

Implications for pre-service teachers

Teacher preparation programs throughout the country are faced with determining whether preservice teacher candidates have the disposition to teach. A way must be devised that will enable pre-service teacher educators to measure disposition at various stages of the educational process. College professors who are engaged in preparing America's future teachers must be equipped with the tools to identify the differing types of teacher dispositions and also the progression of sensitivities as students pass through the various stages involved in pre-service preparation. Drury's School of Education and Child Development follows the philosophical

beliefs of Yale University's Dr. James C. Comer. According to the Comer School Development Program relationships are essential to creating a climate of collaboration in the school system. There are six developmental pathways in the Comer Process, including the social pathway. It is imperative that teachers develop the ability and disposition to develop and nurture relationships. We have attempted to include disposition beliefs and outcomes consistent with the Comer Process throughout the curriculum. Because relationships among individuals are of primary importance to developing positive teacher disposition, **Area 1 – Relationships with Others -** has more sub-descriptors than the others. **Area 4 – Reflective Practice and Self- Reflection -** also contains numerous sub-descriptors that deal with relationships.

Assessing pre-service teacher disposition is a difficult task. An attempt to quantify *soft skills* like involved in teacher disposition incurs the risk of either over simplifying the problem or trying to focus on too much information. Instruments developed to assess teacher disposition can become unwieldy due to the sheer amount of descriptors chosen. We are also cognizant of the fact that attempts to quantify disposition cannot be accomplished without some level of subjectivity.   Realizing this, the authors selected descriptors gleaned from the various theorists and current disposition scales to create an instrument designed to assess pre-service teacher disposition. This instrument is a first attempt to identify those descriptors the authors consider important in measuring disposition. Use of this instrument will hopefully result in a refinement process where descriptors will be added or deleted in order to more accurately assess pre-service teacher disposition.

We (at Drury) have made several attempts to define teacher disposition because we

believe teacher disposition and attitude impact student learning. We also believe

it is our job to assist our students in their growth process as preservice teachers –

regarding knowledge and skill development, problem analysis, and in affective

development involving values, beliefs, dispositions, attitudes and emotions.

It is also our purpose to begin a discussion regarding teacher disposition(s) with the

hope that together we can determine a "best" way to prepare teacher candidates

for the 21st Century.

Williamson & White Student Disposition Rating Scale

Area 1 Relationships with others	Sensitivity	Inclination	Ability	Application
Teacher possesses a sense of humor				
Teacher is willing to voice unpopular views				
Teacher cultivates and maintains extensive informal networks				
Teacher thinks clearly and stays focused under pressure				
Teacher acts ethically and is above reproach				
Teacher admits mistakes and confronts unethical actions in others				
Teacher seeks out relationships that are mutually beneficial				
Teacher takes tough, principled stands				
Teacher is attentive to emotional cues				
Teacher shows sensitivity and understands perspective of others				
Teacher builds rapport and keeps others in the loop				
Teacher offers and receives useful feedback and identifies the need for further growth				
Teacher mentors, coaches, challenges, and fosters skills in others				
Teacher increases satisfaction and loyalty				
Teacher makes and maintains personal friendships among associates				
Teacher offers appropriate assistance				
Teacher is effective in give and take, registersemotional cues, and attunes message				
Teacher spots potential conflict bringing disagreements into the open and de-escalates the conflict				
Teacher encourages debate and open discussion				
Teacher orchestrates win-win situations				

(SDRC)

Area 2 Reliability	Sensitivity	Inclination	Ability	Application
Teacher builds trust through reliability and authenticity				
Teacher meets commitments and keeps Promises				
Teacher is on-time				

Area 3 Willingness to collaborate	Sensitivity	Inclination	Ability	Application
Teacher seeks out fresh ideas				
Teacher actively seeks out opportunities to fulfill the group's mission				
Teacher mobilizes others				
Teacher helps out based on understanding other people's needs and feelings				

Area 4 Reflective practice (including self-assessment)	Sensitivity	Inclination	Ability	Application
Teacher knows emotions				
Teacher realizes links between feelings				
Teacher recognizes that feelings affect performance				
Teacher has a guiding awareness of values and goals				
Teacher is aware of strengths and weaknesses				
Teacher holds self accountable				
Teacher adapts responses and tactics				
Teacher is results-oriented				
Teacher learns how to improve performance				
Teacher finds a sense of purpose in the larger mission				
Teacher operates from hope of success rather than feeling of failure				
Teacher sees setbacks as result of manageable circumstances not personal flaw				
Teacher is reflective and learns from experience				
Teacher uses the group's core values in choices and decisions				
Teacher understands diverse world views and is sensitive to group differences				

Area 5 Personal appearance	Sensitivity	Inclination	Ability	Application
Teacher possesses self-assurance				
Teacher manages feelings and emotions				
Teacher is composed, positive, and unflappable				

Area 6 Teaching (including differentiation)	Sensitivity	Inclination	Ability	Application
Teacher respects and relates well to People of diverse backgrounds				
Teacher understands needs and matches needs to services or products				
Teacher challenges bias and intolerance				

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