Department of Education
College of Liberal Arts

UAH
The University of Alabama in Huntsville

Conceptual Framework

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The University of Alabama in Huntsville

Conceptual Framework for the Preparation of Teachers

<u>Introduction and Overview</u>

Beginning in the Fall of 2001, the faculty of the Department of Education, with solid support from UAH's administration, began the process of self-analysis, assessment, and planning necessary to seek NCATE accreditation. This decision underscoress the commitment of the university to K-12 education by supporting high-quality, research-based teacher education programs.. The faculty sought to use the NCATE process as a means of improving the program by: 1) articulating and refining the program's vision and goals; 2) stating the foundational beliefs and philosophy of the program;3) examining and revising the curriculum to support the program's goals and desired outcomes; 4) aligning the program's activities with state, national, and professional standards; 5) defining and communicating desired candidate achievement in terms of dispositions, academic preparation, and pedagogical skills; and 6) examining and updating assessment procedures for candidates and the program as a whole. The faculty pursued these tasks through a series of retreats, workshops and regular meetings.

Following our initial accreditation by NCATE in 2005, faculty have relied upon the conceptual framework in guiding decisions about programs and assessments. The unit's conceptual framework, however, is very much a living document and a work in progress. While the core principles of the conceptual framework continue to guide the unit's programs, they are not immune from critical examination.We have engaged in a thorough review of our conceptual framework seeking to ensure that it reflects the most current research and provides coherent, consistent direction for our academic programs, curriculum, instruction, field experiences, and assessments at both the initial and advanced levels. Resulting changes to the framework include updating the alignment of our goals and candidate competencies with national and state

standards, renaming the competencies to better reflect the developmental nature of our candidates' learning, merging several candidate competencies (student enabler and developmental professional) into ones that are more inclusive (diversity), and incorporating "essential functions" into our expectations for candidates. Each of these and other changes have helped support the continuous improvement of our teaching, research, and service. The most significant effort of our faculty since 2005 has been in the implementation, evaluation, and refiniement of our assessment system. We have examined our program goals, courses, and feedback from students and community stakeholders as part of our ongoing evaluation and refinement. As a result we have refined our assessment of candidate competencies in our courses, field experiences, and internships, retooled our dispositions assessments, developed new subject specific methods courses for secondary candidates, added an applied multiculturalism course to all programs, and implemented a classroom management course for alternative master's candidates We have also improved our system of trackng candidate field experiences and the mentor teachers for our candidate placements. *We believe our discussions and resulting changes have provided better, stronger evidence to guide program improvement.*

History and Mission of the University, College, and Department

History and Mission of The University of Alabama in Huntsville

The University of Alabama in Huntsville (UAH) is an autonomous campus of the University of Alabama System with campuses in Tuscaloosa, Birmingham, and Huntsville. Academic programs were initiated in Huntsville in 1950 and in 1963 degree opportunities at the master's level were provided. In 1964, baccalaureate level programs were initiated and doctoral programs in physics and engineering were initiated in 1971. In the two decades of the 1970s and 1980s, UAH implemented a broad range of undergraduate degree programs: established master's programs in the liberal arts, nursing, and administrative science, initiated professional degree programs at both the graduate and undergraduate levels, and inaugurated selected Ph.D. programs in the sciences and engineering.

The University of Alabama in Huntsville, a research-intensive university, is committed to rigorous scholarship, innovative education, technological research, cultural growth and entrepreneurial creativity in order to enrich our global community. The University is focused to meet the specific needs of scientific and technological enterprises and the cultural and

intellectual needs of a rapidly expanding region. It is the intention of UAH to be innovative, even experimental, to explore what is new, to evaluate existing programs continually, to develop and establish curricula and pedagogical techniques calculated to help students live and perform well in a complicated environment.

The University of Alabama in Huntsville is accredited by the Southern Association of Colleges and Schools to award bachelor's, master's, and doctoral degrees. Several UAH programs are accredited by their respective accrediting agencies. Additional information can be accessed at http://www.uah.edu/ .

Mission of the College of Liberal Arts

The College of Liberal Arts is committed to excellence in teaching, research, and service in the following disciplines: fine arts, humanities, the social and behavioral sciences, and teacher education. For its own majors, as for those in the professional schools, the College strives to provide superior liberal arts education characterized by close interaction between teachers and learners. Its goals are to impart to each student a spirit of intellectual curiosity, critical thinking skills, abilities in writing and oral communication, aesthetic awareness and creativity, familiarity with human history and behavior, a knowledge of languages and cultures, and an understanding of the bases of ethical behavior and the duties of citizenship. Believing in the centrality of liberal learning to the mission of a university, the College is committed to maintaining a diverse community of teacher-scholars of the highest quality and to providing an environment that encourages personal and professional growth. It considers teaching and research mutually enriching activities and strives to make its knowledge and expertise available to professional programs on campus and to the educational needs of society. Through its graduates and programs, the College contributes to the cultural, intellectual, and economic growth of the state and nation.

History and Mission of the Department of Education

The Department of Education at UAH has been concerned with programs for the preparation of public school personnel since the University's inception in 1949. The earliest teacher education programs were initially connected directly to the College of Education at the University of Alabama, Tuscaloosa; in effect, the UAH programs were offered under the Extension Division of the University of Alabama. During the next 18 years, the Department of Education became increasingly autonomous as the demand for courses and programs expanded.

Finally, by 1967 students could complete all coursework in teacher education at UAH. That spring, the education program at UAH was officially approved, and the first independent Department of Education was established at UAHuntsville. The program has continued to prepare prospective elementary and high school teachers at the graduate and undergraduate levels to serve as leaders in their classrooms and school communities. The faculty in the department is committed to a knowledge base for these programs that reflects the view that educators are reflective decision-makers who facilitate student learning. One of the most important and overarching of the guiding principles of the Department of Education is the commitment to quality of educational opportunities for all.

The Department of Education utilizes the facilities and resources of the entire university, the community, and the schools. Classrooms and faculty offices are located in Morton Hall. The department also maintains a Teacher Materials Resource Center in Morton Hall and a designated Computer Education Laboratory in the Salmon Library where current teaching materials are available and where laboratory classes are held. The Institute for Science Education, a resource center for teaching and research in science and mathematics, is also located across campus on Sparkman Drive. In addition to its teaching function, the department provides in-service education for schools, agencies, and institutions of higher education, conducts and disseminates research to solve educational problems, and provides consultative service to all types and levels of educational institutions.

Teacher education programs at UAH are approved by the Alabama State Board of Education, according to standards of the National Association of the State Directors of Teacher Education and Certification (NASDTEC), for the issuance of appropriate professional certificates for service in public schools. The Education Department holds an institutional membership with AACTE.

The Department of Education, one of eleven departments in the College of Liberal Arts at The University of Alabama in Huntsville (Art and Art History, Communication Arts, Education, English, Foreign Languages and Literatures, Music, History, Philosophy, Psychology, Political Science, and Sociology), is a member of a diverse academic community of teacher-scholars that challenges teacher candidates to strive for excellence in all aspects of their lives. This professional environment affords the Department of Education unique opportunities to make a difference in the lives of elementary, middle, and high school students regardless of

socio-economic backgrounds. In addition, the Department educates teacher candidates who will live and work effectively in increasingly complex societies.

Mission

Consistent with the mission of the university, the Department of Education defines its mission to be:

To prepare effective, knowledgeable and caring teachers who are committed as leaders to addressing the challenges of educating diverse students.

After considering the Institutional, College, and Department missions, the faculty worked to develop a shared vision that is consistent with the vision, mission and goals of the university and is seen throughout the Conceptual Framework.   This consistency ensures that professional education candidates have a rich general knowledge in the liberal arts and sciences, a knowledge of the content they will teach, and a deep understanding of how children learn.

Vision and Theme

We believe that professional teaching combines an imaginative and empathic understanding of learners with a rigorous, research-based body of pedagogical knowledge. These components must be integrated with a substantive preparation from the disciplinary knowledge. We want our teacher candidates to become educators who are reflective leaders committed to the continuing development of dispositions and skills that become manifested in their own practices as an effective balance of both support and challenge for learners.

The shared vision of the Education Department is summarized in our theme, **Through Teaching, We Lead**. The establishment of this theme codifies the major purpose of our department: to graduate teachers who are exceptionally well-prepared in disciplinary, pedagogical, and professional knowledge; who understand, and are prepared to effectively address the needs of all learners; and who are committed to serving as leaders in the educational community to ensure that all students receive a high-quality public or private education.   Our theme was chosen to help us communicate to our students, to the larger UAH academic

community, and to all other stakeholders a concise rendering of our mission, vision, philosophy, and desired outcomes. We believe that all faculty and staff of the Department of Education and the University must share in the development and implementation of this vision.

We want our students to be well-educated, to develop and maintain positive and productive teaching dispositions throughout their careers, and to seek to teach all students, using the most effective, research-based teaching strategies and tools they have available to them at any point in time. It is not enough, however, for our teacher candidates to be re-defined by their experiences at UAH; we want them to act upon the new knowledge, skills, and dispositions that they have developed in order to initiate positive change in the schools that they will join as faculty. We wish to send our teacher candidates forward with more than encouraging words; rather we want them to specifically know how to start making positive changes in their own classrooms and schools. Beginning teachers must learn how to seek out and support other like-minded professionals who also are committed to improving public education. If our graduates find themselves in less than supportive circumstances, they may call on us to provide support and resources as they learn techniques for maintaining and improving their own performance while still finding ways of encouraging others to participate in positive change. We want our students to improve the school and community environments they join, and for them to resist, unfalteringly, forces that discourage teachers and lead them to sometimes become part of a school's problem, rather than a source of solutions, ideas and support for students. In short, we want our students to understand and act upon the ideas conveyed by the following quote by Eleanor Roosevelt:

It is better to light one candle than to curse the darkness.

The sentiment is noble, but—How do we accomplish this?

The Unit's Philosophy, Purpose, Professional Commitments and Dispositions
The Philosophy of the Education Unit

We have developed a consistent philosophy for the unit that can supported and shared by all who play a role in preparing the teacher candidates and educators who are in our programs. Our philosophy serves as the "unit's overarching belief system" to:

- Ground and guide our decisions;

- guide the development of the curriculum;

- inform the content and activities of our courses;

- direct the purposes of the teacher candidates' field and clinical experiences;

- make meaningful our assessment and evaluation of teacher candidates;

- and make meaningful our assessment and evaluation of the unit as a whole.

The unit's belief system provides a structure for designing and implementing educational programs that support an understanding of: (a) the purpose and nature of education; (b) the characteristics of effective teaching and learning; (c) the design of effective learning environments; (d) the characteristics of learners including development, motivation, and diversity; and (e) the nature of real school environments and the role of all stakeholders.

Constructivism as a Basis for the Philosophy of the Education Unit

What exactly constitutes knowledge has long been an arena of debate in philosophy and this debate has considerable import for educational practice. Likewise, an agreed upon definition of learning is difficult to establish even among theorists and researchers in the fields of education and educational psychology. The differing views of knowledge and where it comes from as well as what constitutes the act of "learning" have played a crucial role in the explanations of theorists such as Thorndike, Locke, Piaget, Dewey, Bobbitt, Vygotsky, Kant, Chomsky, Anderson, Newell, Simon, Rumelhart, Klahr & MacWhinney across many years (Byrnes, 2001; Schiro, 2008). These differing views are reflected in the metaphor that Mayer (2003) asks students to complete:

> Learning is like:
> (a) strengthening a connection (i.e., adding new behaviors to your repertoire)
> (b) adding files to a file cabinet (i.e., adding new facts and skills to your knowledge base.)
> (c) building a model (i.e., understanding how to fit pieces of information) (p. 12).

Mayer uses this exercise to alert students to three important metaphors of learning that have been influential in education over the past century. He describes three persistent metaphors of learning in the following table (Mayer, 2003, p. 13).

*Table 1:***Three Metaphors of Learning**

Learning	The Learner	The Teacher	Typical Instructional Methods
Response strengthening	Passive recipient of rewards & punishments	Dispenser of rewards & punishments	Drill & practice on basic skills
Knowledge acquisition	Information processor	Dispenser of information	Textbooks, workbooks, & lectures
Knowledge construction	Sense maker	Guide for understanding academic tasks	Discussion, guided discovery, & supervised participation in meaningful tasks

It is a core belief of the education faculty at UAH that it is worthwhile to teach students to carefully examine their underlying metaphor of learning because this metaphor directly impacts their choices in educational practices. Therefore, in the Teacher Education Program we thoroughly explore the nature of teaching and learning based on current research. As a faculty, we define learning using the third metaphor, *knowledge as construction*. This construction of reality and knowledge is referred to as "social constructivism" and is the teaching and learning paradigm from which the faculty members of the department of education have chosen to teach.

Social Constructivism

Social constructivism views each learner as a unique individual with unique needs and backgrounds who are both complex and multidimensional. Social constructivism not only acknowledges the individuality and complexity of each person, but it also encourages and utilizes it as an integral part of the learning process (Wertsch, 1988; Schiro, 2008). Adherents of this theory encourage the learner to arrive at his or her version of the truth, influenced by his or her background, culture or embedded worldview. Historical developments and symbol systems, such as language, logic, and mathematical systems, are inherited by the learner as a member of a particular culture and these are learned throughout the learner's life. From the social constructivist viewpoint, it is thus important to take into account the background and culture of the learner throughout the learning process, as this background also helps to shape the knowledge and truth that the learner creates, discovers and attains in the learning process (Glaserfeld, 1989; Shiro, 2008). When educators (both in the college classroom and in K-12 environments) do this, they engage in what Gay (2000) calls "culturally responsive teaching."

According to Gay (2000), culturally responsive teaching

- "acknowledges the legitimacy of the cultural heritages of different ethnic groups, both as legacies that affect students' dispositions, attitudes, and approaches to learning and as worthy content to be taught in the formal curriculum;

- builds bridges of meaningfulness between home and school experiences as well as between academic abstractions and lived sociocultural realities;

- uses a wide variety of instructional strategies that are connected to different learning styles. It teaches students to know and praise their own and each others' cultural heritages

- incorporates multicultural information, resources, and materials in all the subjects and skills routinely taught in schools" (p. 29).

In the increasingly diverse classrooms in which participants in the Teacher Education Program will find themselves, culturally responsive pedagogy is necessary to meet the needs of students who come from different cultural, linguistic, and cognitive backgrounds.

Education should be implemented and reformed, based on sound research.

Research can and should influence the practice of education Recent and national dialogue has drawn attention to and confirmed the importance of content and pedagogical knowledge to teacher and student success (Stronge, 2002; Glenn et al., 2000; Darling-Hammond, 1999; National Research Council, 1999, 2000). Recent research also supports the importance of technology to learning (CEO Forum, 2001; Dwyer, 1996; Darling-Hammond, 2010, Stronge, 2007 (Heinecke, et al, 1999; McNabb, Hawkes & Rouk, 1999). We are beginning to appreciate how students' understandings are changed by the kinds of instructional tools that are used. Understanding the impact of technology on education and society is crucial for teachers because they must know how to prepare students, not for the world of today, but for working and living in the world twenty years from now. Becoming aware of, and understanding quality educational research helps to serve this goal. But what do we mean by "quality research?"

Current educational debates occurring in academic circles and in the political arena center on the issue of improving and reforming education based on valid educational research

(Feuer, Towne, & Shavelson, 2002; Pelligrino & Goldman, 2002; Berliner, 2002; Erickson & Gutierrez, 2002; Adams St. Pierre, 2002; Baron, 2002; Baez & Boyes, 2009). The problem is that various groups hold differing views concerning what constitutes valid research, based on their own paradigms and personal belief systems. Some groups hold that only "scientific, strictly controlled, double-blind studies" such as those applied in medical research should be applied as the gold standard for educational research (Coalition for Evidence-Based Policy, 2002). This implies that only certain types of quantitative studies should be considered as "scientific." Others contend that such a narrowly defined paradigm overly restricts the types of questions that can be studied (AERA, 2003; Boyles, 2009). Similar arguments have occurred and continue to occur regarding the value of qualitative versus quantitative methods. Such debates about educational research are not new and much can be learned by looking at the histories of educational research (Shulman, 1986; Fenstermacher, 1986; Shavelson, Webb & Burstein, 1986) and educational psychology (Berliner, 1993). These debates are relevant to teacher education because faculty engaged in programs of teacher education must make decisions concerning what constitutes evidence of effective teaching and successful learning in order to design relevant programs and curricula for their teacher candidates. We must carefully define what bodies of knowledge and methodologies must be conveyed to teacher candidates so that they are optimally prepared to succeed in the classroom.

Teacher candidates must understand the answer to the question, "Why shouldn't one use purely empirical research and only quantitative data?" At the heart of the argument of why one cannot, in all cases, use purely quantitative data to explain how one learns, is the fact that the human mind, its actions, and its processes of learning cannot be de-convolved from freewill, individual perspective, the physiology of the brain, and the physiological variances from individual to individual, and other factors (Berliner, 2002). The point of educational research is really to understand how the mind works and how we learn and it is impossible not to use our own approach to learning as a lens to describe the learning of others. Having noted this fact, it is also crucial to admit that both quantitative and qualitative research have a critical role to play in educational research (NRC, 1992; 1999; 2001; 2002). Qualitative methods often provide an opportunity for very fine-grained studies that help us gain specific knowledge about how students seem to learn and think about concepts. Quantitative methods give us tools to evaluate whether a particular curriculum or teaching method, perhaps derived from qualitative study, is

valid for teaching a large population. The different paradigms merely study different classes of problems

The faculty of the UAH Education Department hold the view that a diversity of research paradigms produces bodies of research that are superior to those grounded in a single paradigm. We believe that teacher candidates must be exposed to research conducted from different perspectives. We choose to implement a balanced program in which teacher candidates are exposed to educational research conducted from a variety of perspectives using a variety of methods. Teacher candidates must develop some expertise and understanding concerning what characterizes high quality research and an ability to identify the research framework being applied. Only by developing this level of sophistication in their craft will they be able to avoid participating in superficial educational fads. If teachers are to be able, throughout their careers, to critique and evaluate educational textbooks, materials, workshops, and "reforms" on the basis of the quality of the research (if any) on which they are founded, then teachers must be equipped with the tools to complete such analysis. We therefore, as a faculty, work to help our candidates attain these tools through their courses and clinical experiences. We believe that they have the potential to be transformative intellectuals who must learn how to think critically about such matters and not be treated as merely technicians teaching out of a manual.

Teaching is a reflective craft.

Teacher candidates must develop, at the very beginning of their careers, the professional and personal habits that reflective teachers employ. Being a reflective practitioner is an attribute often accredited to teachers who are deemed, through educational studies, to be effective teachers.   Being reflective indicates a willingness to think about learning, planning and instructional practices, implementation of teaching, and careful assessment of student learning. Reflective teachers have rich conceptualizations of the instructional strategies that they choose to employ, understand how these strategies fit into theories of cognitive learning, and know how their instructional decisions fit into the wider curricular picture (Confer, 2000). Self-evaluation and self-critique are introspective tools most often used by teachers to consistently improve lessons, discover ways to teach particular children, and experiment with new instructional approaches to better meet the needs of learners. Thoughtful questioning, generated by research, guides the reflective practitioner and when practiced on a consistent basis, can lead to lifelong

professional learning (Stronge, 2002). Critically reflective teachers are able to stand outside their practice and see what they do in a wider perspective (Brookfield, 1995).

The TEP at UAH encourages our teacher education candidates to develop self-reflection as a critical means of developing their teaching practice and leadership potential. Leadership and reflection form a duality necessary for effective teaching and learning to occur.

Valuing diversity strengthens the individual, the school, the community, and the nation.

It is the right of every student to be taught by a teacher who understands and appreciates diversity and is committed to the successful education of *every* student. Teacher candidates must believe that **all** students can learn and must act on that belief. Therefore, it is the responsibility of every teacher education unit to prepare teacher candidates who are equipped to instruct diverse populations. Students come from very different families, communities, and socio-economic levels. Their differences include: ethnicity, race, gender, culture, language, religion, exceptionalities, stages of development, learning styles, and motivation, among other factors. Teacher candidates must demonstrate the commitments and dispositions necessary to teach diverse populations and must learn effective strategies and practices for doing so through their teacher education unit. All candidates are required to take the course ED 430 - *Applied Mjulticulturalism*, where they examines the constructs surrounding diversity, reflect on their own conceptions of diversity, and then develop curriculum for diverse populations. The UAH TEP seeks to educate teacher candidates who are well-prepared and well-disposed to teach in diverse settings. In order to achieve this goal, teacher candidates are assigned to a wide variety of schools during their field placements and student teaching internships. To prepare them for these assignments, the courses in the TEP rely upon a framework of research on multi-cultural education (Ladson-Billings, 1999; Banks, 1995; Bennett, 2002, 2001, 1995; Dilworth, 1992; Ladson-Billings, 2000; Zeichner & Liston, 1987; Rothstein, 2004; Gurian & Stevens, 2005; Nieto & Bode, 2008; Ladson Billings, 2009).

Slavin (2003) describes learners with exceptionalities as, "any individuals whose physical, mental, or behavioral performance is so different from the norm—either higher or lower—that additional services are needed to meet the individuals' needs" (p. 410). Teacher candidates are expected to learn the classifications of exceptionalities, the legal implications of the Individuals with Disabilities Education Act, and the school processes associated with meeting students' needs. All candidates are required to take the course, EDC 301 - *Teaching the*

Exceptional Child, to prepare them to modify instruction to meet the needs of mildly disabled students and to prepare them to work with the school's Special Education staff to create Individualized Education Plans to assist in the education of more severely disabled students, in the least restrictive environment possible.

Building leadership capacity supports teachers acting as change-agents

We view building leadership capacity in teacher candidates as a crucial factor in educating teachers who can enter the teaching workforce and positively influence schools as change-agents. We describe a cycle of reflection and activity that we believe leads to a positive exercise of leadership at the local school level. Teachers, educated, treated, and taught to think of themselves as professionals and as leaders, form a powerful cadre that can support and improve education and dispel myths surrounding the profession (Berliner, 2000).

Today's professional teachers understand that if schools and student learning are to improve, all members of the school community must take some responsibility for leadership, not just principals and leadership team members. It is this capacity for independent thinking, for modeling and leadership within the classroom that we seek to develop in our teacher candidates. Our efforts for developing leadership capacity begin in the very first semester of coursework, where candidates **learn** core pedagogical knowledge, evaluate their own dispositions and commitment to teaching, reflect on their strengths and areas needing improvement, and articulate their commitment to teaching. We monitor and continue to cultivate the dispositions of effective teachers; we create assignments that require candidates to "band together" with other preservice teachers-that is to work collaboratively in their courses and their field experiences (Troen & Boles, 1992); and we provide opportunities for candidates to demonstrate their abilities to design and **teach** lessons that reach ALL students - all necessary qualities for leadership. During their internships, candidates are expected to design innovative lessons, generate and share new ideas with their peers and mentor teachers, and hone their management and classroom leadership skills. By promoting and developing these qualities we believe our candidates will emerge as **leaders --** advocates for ALL children. Below are seven qualities that our graduates possess as reflectiveemerging leaders.

Caring

Good teaching begins with caring about what one teaches, how one teaches, where one teaches, and whom one teaches. Effective teachers care about problems that arise in any of these areas. Good teachers are sensitive to situations in their classrooms and schools and are aware of the relationships that exist among all constituencies in the school and community. Reflective teachers care about the problems that they encounter and begin to consider options for solving the problem.

Listening

Effective teachers begin the process of problem solving by communicating with the persons who are involved in the problem. This requires that they are able to listen carefully to understand the nature of the problem, the viewpoints of those involved, and to consider the suggestions of others concerning how to solve the problem.

Learning

Effective teachers are willing to devote the time to find all sources of information, written and interpersonal, to help them resolve a problem and are willing to learn new ideas and techniques to help them achieve their goals.

Thinking

After gathering information about the nature of the problem and conducting research concerning possible solution methods, effective teachers stop to reflect and think about the possible approaches to a problem and about the possible consequences of each approach. Based on an evaluation of these consequences, and perhaps with additional communication with the involved parties, effective teachers make a plan for action.

Acting

Effective teachers are not content to describe the existence of a problem or to merely describe what others could or should do to attempt a solution. Rather, pro-active teachers assume the responsibility for attempting to solve the problem. Such teachers are able to devise a plan and are willing to act.

Analyzing

Reflective teachers analyze the results of an attempt to solve the problem and if necessary, devise a new plan. If successful, such teachers analyze the factors that led to the success and also consider other, possibly more efficient ways to solve the same problem.

<u>Leading</u>

Proactive teachers become comfortable applying a problem solving cycle and do not cede responsibility for problem solving to others. They are willing to accept this responsibility themselves and seek to involve others, including students and colleagues, in problem solving. Proactive teachers are willing to lead others in recognizing and solving problems. Proactive teachers understand the saying, "You are either part of the solution, or part of the problem."

Ultimately, the value of a unit's philosophy of education must be measured by the consistency of its arguments, its implementation and integration throughout the unit's educational programs, and by the awareness and action of the teacher candidates and educators that are immersed into this philosophy. We must ask: Do the teacher candidates and educators that emerge from our programs understand and share our philosophy? Are they willing to join an educational community that seeks to apply this philosophy in classroom practice? Are they able to modify this philosophy based on new educational research and the expertise that they will gain through their own practice as teachers? In order to become useful to society, the philosophy must be turned into positive action.

One's philosophy is not best expressed in words; it is expressed in the choices one makes... and the choices we make are ultimately our responsibility. Eleanor Roosevelt

The Purpose of the Education Unit

The establishment of the theme, ***Through Teaching, We Lead***, codifies the major purpose of our department:

To prepare teachers who are exceptionally well-grounded in disciplinary, pedagogical, and professional knowledge, who understand, and are prepared to address the needs of all learners, and who are committed to serving as leaders in the educational community to ensure that all students receive a high-quality public or private education.

Importantly we expect the department to provide an environment that encourages faculty to model sound pedagogy, engage in research and scholarly activities, and become leaders within their areas of expertise.

Finally, we seek to make our teaching, research, and service available to the entire community in order to meet the changing needs of schools, organizations, and professional communities in our region, state, nation, and international community.

Overarching Candidate Competenties

Our purposes include educating **Teacher Leaders** who demonstrate the following competencies:

- **CONTENT.** The candidate knows the subject and structure of the discipline, organizes and creates learning opportunities that link the subject with other disciplines, and engages the learner in construction of meaning within the discipline.

- **PEDAGOGY.**

  o **Teaching.** Candidate uses multiple teaching and learning strategies to meet the needs of students, creates lessons and activities that are aligned with state and local curricular goals, and uses technology to increase student engagement.

  o **Assessing Student Learning.** Candidate develops and uses a variety of formal and informal assessment strategies to plan instruction, monitor student performance, evaluate student learning and documents impact of instruction on student learning.

  o **Managing the Learning Environment.** Candidate uses an understanding of individual and group motivation and behavior to create a safe, well-organized, and equitable learning environment that supports positive social interactions and active engagement in learning.

- **CRITICAL THINKING.** Candidate models effective critical thinking patterns and problem solving approaches and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

- **DIVERSITY.** Candidate understands how children and youth learn and develop, and can provide learning opportunities that support their intellectual, social, and performance skills. Candidate also understands how students differ in their approaches to learning and creates instructional opportunities that meet the needs of learners from diverse cultural backgrounds and learners with exceptionalities. The candidate uses this knowledge to promote equitable learning opportunities for *all* students.

- **COMMUNICATION.** Candidate uses knowledge of effective verbal, nonverbal, and media communication techniques that foster active inquiry, collaboration, and supportive instruction in the classroom.

- **PROFESSIONALISM.** Candidate evidences leadership capacity and a solid commitment to the teaching profession.

  - **Collaboration and Relationships**. Candidate communicates and interacts with parents/ guardians, families, school colleagues, and the community to support students' learning and well-being.

  - **Reflective and Professional Development.** Candidate is a reflective practitioner who continually evaluates effects of his/her choices and actions on others (students, parents, and other professionals in the learning community). Candidate actively seeks out opportunities to grow professionally.

  - **Professional Dispositions**. Candidate exhibits ethical and professional dispositions and conduct..

Professional Commitments and Dispositions

Our experience in working with teacher candidates has taught us, as a collective faculty, that the professional commitments and dispositions of the candidates are critical factors in determining the future effectiveness of the candidate in the classroom. The proper attitudes may lead a candidate, who we once considered as marginal or at-risk of failure in the early, pre-professional skills block of courses, to continue to grow in content and pedagogical knowledge and therefore become a successful student teacher. On the other hand, we have observed teacher candidates at both the graduate and undergraduate levels, who possess superb content area qualifications yet they are not successful in student teaching because they do not possess and practice appropriate commitments and dispositions. The literature in this area (Collinson, 1996; Combs, 1976; Davis-Blake & Pfeffer, 1989; Fallona, 2000; Groves, Wallace, & Louden, 2001; Powers, 1999; Wasicsko, 1977; Borko, Liston, & Whitcomb, 2007; Schussler, Stooksberry, & Bercaw, 2010) proves that our experiences are not unique and therefore it is a crucial component of any teacher education program to clearly define commitments and dispositions. Teacher

candidates must be made aware of the necessary commitments and dispositions that define an effective teacher. Our teacher candidates are introduced to the dispositions during their first education course ED 301 - *Introduction to Education*. Dispositions continue to be woven into the framework of each course in the UAH Teacher Education Program. Candidates are provided with opportunities to engage in a self-evaluation of these dispositions and to demonstrate these attributes as they progress throughout the program. We deem the following characteristics to be indicators of a strong commitment to the profession and the dispositions necessary for successful teaching:

- **Intellectual Curiosity.** The teacher candidate enlivens the role of researcher and expresses a genuine love for learning by consistently modeling behavior that exemplifies intellectual curiosity and engagement. In the classroom, the teacher candidate fosters and encourages students to extend their personal immersion in learning beyond course content.

- **Respect for all Learners**. The teacher candidate demonstrates respect for and fosters positive rapport with all students.

- **Multicultural Sensitivity.** The teacher candidate promotes the development of an awareness and understanding of cultural, ethnic, and economic differences and understands their impacts on learning.

- **Self-initiative.** The teacher candidate accurately assesses needs and independently implements plans to address student needs in creative and resourceful ways.

- **Flexibility.** The teacher candidate identifies and positively adapts when unanticipated occurrences arise.

- **Interaction with Others.** The teacher candidate initiates positive interactions with students, faculty, peers, and others.

- **Tact and Judgment.** The teacher candidate is diplomatic. The teacher candidate is sensitive to others' feelings and opinions.

- **Reliability/Dependability.** The teacher candidate is always responsible. The teacher candidate attends to tasks or duties without prompting.

- **Oral Communication Skills.** The teacher candidate is articulate, expressive, and conversant. The teacher candidate is able to adapt his or her communicative style to the situation; the teacher candidate listens well and responds appropriately.

- **Written Expression.** The teacher candidate expresses ideas clearly and concisely. The teacher candidate makes no mechanical errors.

- **Attendance/Punctuality.** The teacher candidate is punctual and has regular attendance. The candidate provides prior notification and reasonable explanations for absences.

- **Professional Appearance.** The teacher candidate follows the appropriate dress code for the situation.

Essential Functions

In addition to the candidate competencies and dispositions discussed above, teacher candidates must be able to carry out what K-12 schools often define as the essential functions or responsibilities of the job. Most candidates can meet these responsibilities with little or no additional support. However, our candidacy pool is becoming more diverse. As more students with disabilities experience success in elementary, middle and high school, they are more likely to enroll in postsecondary education programs, including our teacher preparation programs. Sometimes these students, and certainly many teacher preparation programs are not equipped to meet this challenge. In an effort to better serve our candidates, especially those with disabilities, the unit faculty and a group of school leaders collaborated in the development of a set of essential functions all candidates should be able to perform; the listing of skills is a sample of the types of essential functions required of classroom teachers. Our goal in developing the list is to build an awareness and provide the necessary support system for all candidates to successfully meet program and state/national goals for highly qualified educators.

Physical:
- Demonstrates necessary endurance to access school environment.
- Is able to sit a minimum of ten minutes, stand for one hour and walk for a minimum of five continuous minutes.
- Is able to physically access various environments across the school facility including classrooms, cafeteria, library, stairs, and elevators.
- Is able to physically access and utilize chalkboards, posters, bulletin boards, overhead projectors and other technology related equipment.
- Is able to physically manipulate the environment in order to retrieve, use and/or store teaching materials including books and equipment.

- Possesses visual, auditory and/or sensory functions sufficient to navigate school related environments in order to ensure safety.
- Demonstrates fluid communication skills which can be understood by individuals who are unfamiliar with the individual's speech patterns.

*Collaborative Candidates Only:
- Can physically push or pull wheelchairs, standers or other equipment related to student mobility.
- Can perform single or two person lifts or assist students with physical transfers.
- Is physically able to assist or direct physical restraint as dictated by a Behavior Intervention Plan.

Socio-Emotional
- Maintains high emotional energy and displays enthusiasm for content, students and colleagues.
- Uses people first, non-discriminatory language.
- Utilizes eye contact and body language appropriate to the educational setting.
- Exercises emotional maturity by avoiding curt, rude, defensive or inflammatory behaviors when communicating with administrators, colleagues or parents.
- Seeks assistance from administrators, colleagues or outside professional resources in order to resolve deficits or increase knowledge regarding instructional strategies, classroom management, or interpersonal relationships.
- Creates meaningful opportunities to motivate and include community stakeholders (parents, businesses, community helpers) to maximize student learning.
- Adheres to school or system dress policies including piercings, tattoos, personal hygiene (hair and nails) and type of clothing to be worn.

Teacher candidates are expected to adopt and practice these dispositions concerning teaching. Candidates are expected to value and respect their general education courses that are grounded in the liberal arts. Appreciation of a strong liberal arts education indicates that the candidate understands the value of learning to write and speak well, values numerical literacy, understands the significance of evaluating causes and effects of historical events, and appreciates

the contribution of such an education to their understanding of the society in which they will live and work. Candidates are expected to value the courses they take in the content discipline area. These courses help candidates develop a thorough understanding of their disciplines, the methods of study contained therein, and an appreciation and enthusiasm for the disciplines which they will be able to share with their students. We want the candidates to exit the professional education courses with an understanding and appreciation of the research-based knowledge and skills that characterize the effective teacher and to realize the life-long commitment they will need to make to achieve mastery of their chosen profession. Teacher candidates should exit the program understanding that teaching is a demanding, difficult, yet immensely rewarding career and that, despite some attitudes to the contrary, it is a profession with its own set of required critical skills and attitudes.   Teacher candidates must exit the program valuing the professionalism of teaching and committed to the life-long learning and growth needed to sustain their progress in the profession.

Knowledge Base: Theories, Research and the Wisdom of Practice

Rationale for the Candidate Goals and Outcomes

The following sections provide a research-based rationale supportive of our candidate performance outcomes in the Department of Education. The faculty identified six outcomes for each teacher candidate deemed to be necessary for achieving success in the classroom. These outcomes are intended to incorporate a wide knowledge base including content knowledge, pedagogical knowledge, and professional knowledge. They are grounded in national teaching standards, such as INTASC; state standards, as defined by the Alabama State Department of Education; and standards defined by national professional organizations in the content areas, for example, the National Science Education Standards (NSES). The basis of the outcomes in the research literature is explored in the following discussion.

A competent teacher candidate has advanced CONTENT KNOWLEDGE.

Strong content knowledge consistently has been identified as an essential component among effective teachers (Stronge, 2002; Glenn et al., 2000; Darling-Hammond, 1999; National Research Council, 1999, 2000). Teachers with extensive subject matter knowledge are better able to extend beyond the basic content included in instructional materials and can involve students in meaningful discussion and student-directed learning experiences. Integral to the

attainment of subject matter expertise is the ability to convey and teach the content to others. Teacher candidates must possess an acute awareness of the concepts and ideas they will be expected to teach. This strong background in the content area can assist teachers in planning and organizing lessons that are sequential, interactive, and meaningful.

Stronge's (2002, 2007) synthesis of research concerning the importance of content knowledge in the preparation of teacher candidates provides impetus for a strong emphasis in teacher education programs:

- Students perform better when their teachers have majored or minored in the subject that they are teaching.
- Teachers with a major or minor in content area are associated with higher student achievement, especially in the area of secondary science and mathematics.
- Students, teachers, principals, and school board members have emphasized the importance of subject matter knowledge in describing effective teaching.
- The ability to convey the content to students in a way that they can grasp, use, and remember is important, but it is not necessarily related to additional knowledge or coursework in the content area.
- Content area preparation is positively related to student achievement within specific subjects, especially in mathematics and science.
- Several studies have illustrated that teachers with greater subject matter expertise tend to ask higher level questions, involve students in the lessons, and allow more student-directed activities.
- Inconsistent results have been reported relating teacher scores on subject matter tests to student achievement, raising questions as to how well such tests measure aspects of content knowledge that are important for effective teaching of that content.
- Unfortunately, approximately, 23% of all secondary teachers (30% of math teachers) do not have even a minor in the field they teach. (pp. 8-9)

Content area knowledge clearly affects teaching performance, but content knowledge itself is not sufficient. Stronge's (2002) review notes that teacher candidate preparation programs "that emphasize content knowledge acquisition and neglect pedagogical coursework are less effective

in preparing prospective teachers to teach today's students than programs that offer content and pedagogical knowledge" (p. 8).

Recognizing the potential of technology and the centrality of the teacher in the education process, the TEP also incorporates aspects of STEM (Science, Technology, Engineering, and Mathematics) education in its preparation of teacher candidates. STEM is a main focus of the math and science pedagogy courses education majors take while completing their studies. According to a recent report published by the National Research Council, "teachers should have a deep knowledge of their subject matter and an understanding of how students' learning develops in that field, the kinds of misconceptions students may develop, and strategies for addressing students' evolving needs" (National Research Council, 2011, p. 82).

A competent teacher candidate has advanced PEDAGOGICAL CONTENT KNOWLEDGE.

By "advanced pedagogical content knowledge,"we refer to the knowledge about theories of cognitive development and learning as well as knowledge of appropriate pedagogies to apply within the content areas. While candidates learn about a variety of learning theories, including behaviorism, schema theory, information processing theory, and constructivism and their currently understood connections to neuroscience (Byrnes, 2001), the Teacher Education Program at UAH is based largely along a Constructivist perspective.

Pedagogical Content Knowledge (PCK)

Teacher candidates need pedagogical-content knowledge; a combination of the academic content knowledge with the knowledge of how to teach and how to match instruction to student differences (Staub & Stern, 2002; Wongsopawire, 2012).Teacher candidates must demonstrate their knowledge of how to best explain particular concepts and how to demonstrate and explain specific procedures and methods relevant to the content area. They must also be able to use this knowledge to correct students' misconceptions about the subject matter.

Connections to Classroom Practice

In understanding and applying constructivism, teacher candidates must focus attention upon the learner and creation of a learner-centered classroom learning environment. The underlying theory of constructivism must be translated into pedagogy across the disciplines. Two central ideas guide the constructivist view: (1) Learners are active in constructing their own

knowledge and (2) Social interactions are important in this knowledge construction process (Bruning, Schraw, & Norby, 2011). The descriptors of constructivist teaching behaviors postulated by Brooks and Brooks (1993) (see Table 2), provide guidance in helping teachers learn to turn theory into practice.

Table 2. Descriptors of Constructivist Teaching

Constructivist Teachers:
• Encourage and accept student autonomy and initiative.
• Use raw data and primary sources, along with manipulative, interactive, and physical materials.
• Use cognitive terminology such as "classify," "analyze," "predict," and "create" when framing tasks.
• Allow student responses to drive lessons, shift instructional strategies, and alter content.
• Inquire about students' understandings of concepts before sharing their own understandings of those concepts.
• Encourage students to engage in dialogue, both with the teacher and with one another.
• Encourage student inquiry by asking thoughtful, open-ended questions & encouraging students to ask questions of each oth
• Seek elaboration of students' initial responses.
• Engage students in experiences that might engender contradictions to their initial hypotheses and then encourage discussio
• Allow wait time after posing questions.
• Provide time for students to construct relationships and create metaphors.
• Nurture students' natural curiosity through frequent use of the learning cycle model.

Source: Adapted from Brooks, J. G., & Brooks, M. G. (1993). *In search for understanding: The case for constructivist classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development. (pp. 101-118)

We believe, as teacher educators, if we want our candidates to understand constructivist theory and its connections to teaching and learning, if we want them to understand the significance of student-centered classrooms, and if we want them to understand and enact their

roles in creating these types of learning environments, we must provide them with the knowledge and tools to do so.   It is not sufficient to teach theory and instructional practices without giving teacher candidates the opportunity to apply these practices. Furthermore, we must show them how to reflect on their roles in the classroom as well as their students' roles in order to help them gain a clear understanding of the connections among planned activities, constructive learning processes, and what counts as learning.

How will you teach the learning objectives you have targeted? What will the students read or do? Is a lecture the best method for presenting the information, or would an inquiry lesson better suit the purpose? Should students work independently or in groups? These are the kinds of questions we would like to see our teacher candidates ask when preparing lesson plans. Having a broad knowledge of specific teaching strategies is paramount to their ability to meet individual and group needs of the students. Eggen and Kauchack (2012) define strategies as "general approaches to instruction that apply in a variety of content areas and are used to meet a range of learning objectives." Teacher candidates learn various strategies and models (specific approaches instruction) promote higher-order thinking while increasing student engagement. Teacher candidates learn instructional models such as Jigsaw, Student Teams Achievement Division and Discussion that emphasize group work and cooperative learning and models like Guided Discovery and Concept Attainment that focus on helping their students to acquire a deeper understanding well-defined concepts. As teacher candidates, they become skilled in questioning and guiding student thinking. They also learn models like Integrative, Problem Solving and Inquiry that help students construct a deeper understanding of organized bodies of knowledge while developing critical thinking skills and that develop problem solving skills and self-regulation (Eggen and Kauchak, 2012). Mastery of these models and strategies equips our teacher candidates with the skills necessary develop lessons that are engaging and connected to students' lives while engaging them in higher order thinking.

Technological Pedagogical Content Knowledge (TPACK)

The ubiquitous nature of computers, smartphones, iPads, iPods, iPhones, iTouches, Androids, tablets, digital readers, interactive video games, iCloud, Facebook, Twitter, Google and Yahoo, …etc. and other forms of media have significantly altered the lives of most people. On a daily basis, one will find students using these and other media like texting, tweeting and

searching the web while completing homework, watching television, or hanging out with friends. It behooves the TEP to prepare candidates to be knowledgeable in how to implement technology in their classrooms.

Education technology is widely recognized as a valuable tool to achieve educational objectives, especially when combined with key factors that increase achievement, such as "clear, measurable objectives, parental and community involvement, increased time spent on task, frequent feedback, and teacher subject matter expertise" (CEO Forum, Year 4, StaR Report, 2001, p. 5). Teachers' self-reports of technology integration document a pedagogical shift in education toward a more constructivist paradigm (Fatemi, 1997; Jerald, 1998; Dwyer, 1996; Fisher, Dwyer & Yocam, 1996). Dwyer (1996) specifically notes this shift in teaching approach from "knowledge instruction to knowledge construction" and technology has been a significant catalyst for this change. Researchers have discovered in the past 15 years that technology holds tremendous potential as a "powerful tool to support collaborative learning environments" (Sandholz, Ringstaff, & Dwyer, 1997, p. 184). Additionally, learning environments that effectively engage and motivate diverse groups of learners rely on technology in order to meet goals and objectives.

In the TEP, the faculty understand that educating our candidates on effectively intergrating technology in classrooms settings requires more than simply exposing them to specific tools. It requires us to help them develop their Technological Pedagogical Content Knowledge (TPACK), as defined by Mishra and Koehler, (2008). In essence, the TPACK framework has three elements: content, pedagogy and technology. In order to effectively integrate technology into the classroom, a teacher needs an understanding of how these three interrelate. Specifically, teachers need to understand,

> [R]epresentations of concepts using technologies; pedagogical techniques that apply technologies in constructive ways to teach content in differentiated ways according to students' learning needs; knowledge of what makes concepts difficult or easy to learn and how technology can help redress conceptual challenges; knowledge of students' prior content-related understanding and epistemological assumptions; and knowledge of how technologies can be used to build on existing understanding to develop new epistemologies or strengthen old ones. (Mishra & Koehler, 2008, p.3)

As new technologies (e.g. ELMO, SmartBoards, digital projectors, etc.) have become readily available in many K-12 classrooms, the Teacher Education Program at UAH has incorporated technology initiatives in its core curriculum. Students are required to take ED 350 - *Technology in the Classroom*, which provides teachers with skills to use various technological components to enhance their pedagogy. In addition, teacher candidates are given the opportunity to attend technology workshops throughout the year.

Mergendollar (1996) posits "that technological tools can spur pedagogical changes," yet, the "utility of such changes must be measured ultimately by their impact on student learning" (p. 45). Understanding the interdependent relationship among "technology, pedagogy, project-oriented curricula, and student learning" (p. 45) is critical to effective integration of technology into instruction. Such integration is the result of many factors, chief of which are the teacher, his/her competence, and the ability to shape technology-based learning activities to meet student learning needs" (Fulton, 1998, p. 60). We know that the technology revolution has made possible collaboration across classroom, state, and country borders. We also know that making connections to students' life experiences means accessing the world of cyberspace in ways that enhance students' critical thinking and their abilities to understand new concepts. As more research becomes available relating to the effects of technology on instruction, we must be ready to respond in a way that is consistent with best practices research.

A competent teacher candidate is a CRITICAL THINKER.

For students to grow in their abilities to achieve progressively higher levels of abstract thought, they must have teachers who are skilled and knowledgeable in the methods that encourage such growth. Towards that end, professors in the department of education employ a number of pedagogical methods that require inquiry, problem-solving, analysis, dialogue, reflection, and revision. Collectively these skills and capacities can be called "critical thinking." In all courses and in each block teacher candidates must demonstrate critical thinking through a variety of assignments such as reflective papers, project-based learning, role-playing, theoretical analysis, and content development.

During their introductory education classes, called the pre-professional core , teacher candidates study a variety of approaches to decision-making, the consequences of their decisions, and the importance of reflecting upon their decisions. This foundation is expanded upon as

candidates move through the program. Teacher candidates also encounter different strategies for encouraging critical thinking and problem solving through study in the content discipline areas and through the content area methods classes, studying numerous problem solving and critical thinking models in the teacher education curriculum such as the KW(H)L model in reading, the scientific method, writing processes, and study skills methods. Teacher candidates also study Bloom's taxonomy (Bloom, et al. 1956), and other classification devices that require them to consider the level of thinking that is required from students to answer the questions that they ask or to complete the assignments or assessments given. Professors and instructors both encourage and require the use of the highest levels from Bloom's taxonomy in student work.

While most teacher preparation programs focus exclusively on higher-level or higher-order thinking as defined by Bloom, UAHuntsville's teacher education program also requires students to demonstrate what Kellough and Carujuzaa (2008) call "intelligent behavior." These skills and capacities include the following, which are notably absent from Bloom's taxonomy:

- Perseverance

- Impulse control

- Listening to others with understanding and empathy

- Cooperative thinking-social intelligence

- Flexibility in thinking

- Metacognition

- Striving for accuracy and precision

- Questioning and problem posing

- Drawing on knowledge and applying it to new situations

- Inquisitiveness

- Taking calculated risks

In their coursework teacher applicants are expected to demonstrate the above in a number of ways. For example impulse control, listening to others with understanding and empathy, flexibility in thinking, and metacognition must all be demonstrated when engaging in debate over complex and controversial issues such as those explored in the foundations and multicultural

education courses. Reflective course requirements which ask students to examine their own development in relation to what they learn in their classes as well as observe in their field experiences further develop metacognitive skills. Group work, carefully designed and executed, fosters cooperative (social) intelligence. In courses such as the foundations, methods, and assessment courses, professors encourage students to strive towards accuracy and precision by teaching towards mastery, requiring students to turn certain assignments in until those assignments are as close to perfect as possible. Through the creation of multi-week lesson plans in their methods and assessment courses, teacher candidates must incorporate questioning and problem posing. As part of their dispositions assessment, professors and instructors rate students on a scale of 1-4 for intellectual curiosity (inquisitiveness), encouraging students who are quiet and withdrawn to engage more fully with colleagues and coursework by the development and implementation of Professional Development Programs (PDPs). This engagement is a form of risk taking, as many of our students begin our teacher education program afraid to speak up or speak out.

The student teaching semester is a risk taking enterprise in and of itself, as it requires students to move from the theoretical to the practical, drawing on the knowledge gained in their coursework and field experiences and then applying it to new situations as demanded by their unique field experiences. Finally, it is no exaggeration to say that the work and time commitments required to complete UAHuntsville's teacher education program are demanding, and many first block students lament the time required to complete course requirements. Completing the program, therefore demonstrates perseverance, a quality that students must have if they are going to succeed as teachers.

A competent teacher candidate understands and embraces DIVERSITY

The Teacher Education Program (TEP) at UAH recognizes that a society cannot function to its fullest when it ignores the ideas, contributions, efforts, and concerns of any of its citizens. Teacher candidates must develop an empathic cultural sensitivity to the demographic changes and cultural diversity that continues to develop in the public schools as a result of the dramatic demographic shifts in population and a pervasive change from a national to an international society. Based on U.S population projections from the Pew Research Center, we can say with

confidence that a predominantly white teaching force must prepare itself for a increasingly non-white student body, for in 2008 43% of elementary students in the United States were non-white and by 2020, half will be (Moule, 2012).

Diversity, however, is not just a racial or ethnic issue. As Nieto and Bode (2008) explain through their "sociopolitical" framing of multicultural education, diversity extends beyond race and ethnicity to include class, language use, gender, sexual orientation, religion, and ability, all of which impact how children learn. Examples of how instruction might change vary accordingly. Members of the growing Latino/Latina population might have needs different from language majority students (Pang & Jones 2004). Minority students might need different types of education than children born into the dominant culture (Ladson Billings, 2009). Boys might need different types of education than girls (Gurian & Stevens, 2005). Poor students might need different types of education than wealthier students (Rothstein, 2004). Students struggling with sexual identity, who are five times more likely to skip school due to fear, might need different types of education than students comfortable with who and where they are (Callahan, 2001). The UAH TEP stresses the word "might" as teacher candidates must develop cultural, ethnic, gender, racial, religious, socioeconomic class, age, and exceptionality understanding while developing an awareness that there is as much diversity *within* groups as *among* them, and importantly, no identifier dictates or defines student potential.

Though dated, the seminal works of Banks (Banks, 1996a; 1996b; Banks & Banks, 1995; Banks, 1981) remain integral to understanding America's diverse classrooms. These works insist that multicultural education include the following dimensions: personal and cultural knowledge integration, knowledge construction and transformation, prejudice reduction, an equity pedagogy (equal access of classroom knowledge), and school culture that is empowering. Teacher candidates must be given opportunities to "investigate and determine how cultural assumptions, frames of references, perspectives, and the biases within the discipline influence the ways that knowledge is constructed (Banks, 1996, p. 21). Educators at all levels must strive to effect and assist learners in a struggle for a more compassionately just and moral system capable of sustaining the diversity of human beings—a fundamental condition of human dignity (Yeo, 1997).

The findings of Banks' Multicultural Education Consensus Panel evolved into twelve essential principles that can help professional educators make significant differences in the lives

of students and are necessary to the maintenance of a free and democratic society. The following compilation of essential principles for teaching and learning in a multicultural society outlined in Table 3 provided overall guidance to the TEP at UAH. These essential principles provide both an opportunity and a challenge to achieve the delicate goal of "diversity within unity" toward which our society must strive.

Table 3. Essential Principles for Teaching and Learning in a Multicultural Society

Category 1 Teacher Learning	*Principle 1*. Professional development programs should help teachers understand the complex characteristics of ethnic groups within U.S. society and the ways in which race, ethnicity, language, and social class interact to influence student behavior.
Category 2 Student Learning	*Principle 2.* Schools should ensure that all students have equitable opportunities to learn and to meet high standards. *Principle 3.* The curriculum should help students understand that knowledge is socially constructed and reflects researchers' personal experiences as well as the social, political, and economic contexts in which they live and work. *Principle 4.* Schools should provide all students with opportunities to participate in extracurricular and co-curricular activities that develop knowledge, skills, and attitudes that increase academic achievement and foster positive interracial relationships.
Category 3 Intergroup Relations	*Principle 5*. Schools should create or make salient superordinate or cross-cutting groups in order to improve intergroup relations. *Principle 6.* Students should learn about stereotyping and other related biases that have negative effects on racial and ethnic relations. *Principle 7.* Students should learn about the values shared by virtually all cultural groups (e.g. justice, equality, freedom, peace, compassion and charity). *Principle 8*. Teachers should help students acquire the social skills needed to interact effectively with students from other racial, ethnic, cultural and language groups. *Principle 9.* Schools should provide opportunities for students from racial, ethnic, cultural, and language groups to interact socially under conditions designed to reduce fear and anxiety.
Category 4 School Governance, Organization, and Equity	*Principle 10*. A school's organizational strategies should ensure that decision-making is widely shared and that members of the school community learn collaborative skills and dispositions in order to create a caring learning environment for students. *Principle 11.*Leaders should ensure that all public schools, regardless of their locations, are funded equitably.
Category 5 Assessment	*Principle 12*: Teachers should use multiple culturally sensitive techniques to assess complex cognitive and social skills

Source: Adapted from Banks, J.A., Cookson, P., Gay, G., Hawley, W.D., Irvine, J.J., Nieto, S., Schofield, J.W., & Stephen, W.G. (2001). Diversity within unity: Essential principles for teaching and learning in a multicultural society. *Phi Delta Kappan, 83(3),* pp. 196-203.

When considering pedagogical approaches appropriate in addressing issues of diversity, it is paramount that teachers understand that teaching is an activity that principally involves teachers and learners in interaction with one another and with the subject content. Underlying all good teaching are goals that transcend specific disciplines. Cushner, McClelland, and Safford (1992) suggest that the following characteristics must be promoted and nurtured among teacher candidates and within classroom learning environments: 1) development of a positive self-image; 2) development of a sense of identity; 3) development of a sense of pride; 4) development of a sense of connectedness; and 5) development of a sense of confidence in one's ability to act. (pp. 296-300)

Cushner, McClelland, and Safford (1992) argue that "this making of connections is, for both students and teachers, the heart of the pedagogical process" (p. 299). Helping teacher candidates develop effective interpersonal relationships and inter-group interaction skills while facilitating the nature and content of personal linkages with diverse persons can lead them "to explore the various ways people are similar, yet different from each other; how their behavior affects others; how their destinies are intertwined; and how their efforts can contribute to a great whole" (p. 299). Engaging teacher candidates in creation of personal histories, dialogues with people who have encountered critical events, recording oral histories from older persons, and engaging in activities that put teacher candidates in someone else's shoes are strategies that broaden the experiences, perspective, and understanding of all people.

A competent teacher candidate is an EFFECTIVE COMMUNICATOR.

To be an effective communicator, the teacher candidate must understand all forms of communication that are important in the profession and must seek to become proficient in each of them. Teacher candidates must become role models for speaking and writing well and conveying to students the reasons why such skills are important to everyone. Effective communication in education not only requires exemplary oral and written communication skills, however; it also requires much beyond this. Applying their knowledge of teaching pedagogy and content-area pedagogy, teachers must develop and implement lessons that communicate concepts to students using multiple approaches, or representations. Teacher candidates acquire pedagogical knowledge that is relevant to communication in the professional education classes,

content-area classes, and in methods courses. During this part of their education they become familiar with recognized methods for designing and communicating well-planned lessons. In addition, however, they are also required to learn and apply the standards of communication that are recommended by professional organizations in the discipline teaching field. For example, one of the strands of the NCTM Standards is *Communication*. For each grade level band, NCTM makes recommendations concerning how to best communicate mathematical ideas in particular topic areas and at particular grade levels (NCTM, 2000).

Teacher candidates must also become able to communicate with students in ways that are appropriate developmentally and culturally relevant. Teachers must be able to "find the currency" with students; meaning they must be able to apply the knowledge, experiences, and techniques that they have encountered, to find pathways in which they can meaningfully connect with their students. Communication also serves as a tool of collaboration between students and teachers, and among students. Effective uses of communication methods, in conjunction with collaborative teaching strategies, are critical components in the development of a student-centered classroom.

Teacher candidates must leave the university with a wide range of skills that allow them to quickly leverage all technological avenues of communication that they will have at their disposal in the school environment. Many young people in today's culture have developed a great deal of technical proficiency in using tools as varied as computers, calculators, or cell phones. Many are only limited in their ability and desire to use these tools by economic circumstances. And in any case, most students have become accustomed through popular media to expect high quality technological presentations whether through TV, movies, the Internet, or computer gaming. Because of these factors, it becomes more difficult for teachers to maintain students' attention if they are not proficient in using effective collaborative teaching strategies or if they are unable to effectively use the technology that they have available. Teacher candidates must therefore learn how technology can be used to enhance communication with their students.

A competent teacher candidate is a LEADER AND PROFESSIONAL.

Educational research consistently shows teaching and the arrangement of the learning processes of students to be a very complex matter. The question of just how people and

particularly children learn already elicits divergent and incomplete answers. Consensus on how a learning environment can best be arranged to maximize the learning of 30 high school students of approximately 15-years of age with different interests, different learning styles, different attitudes, different personalities, different family backgrounds, and different rates of physical, mental, and emotional development simply does not exist.

Besides possessing profound knowledge of the subject, a teacher must be able to 'translate' his or her knowledge to the level of the student, the so-called pedagogical content knowledge. Furthermore, the way someone teaches needs to be in line with very divergent and continuously changing situational and contextual aspects, such as the above mentioned characteristics of their students, the time of the day, period in the year, and so on. Teaching 30 students in a classroom means interactions with 30 individuals, which can be multiplied with the amount of groups a teacher has to teach in a single week. As a consequence of all this, classrooms are very unpredictable environments, and teaching can be emotionally a very intense and energetic activity. As Shedd and Bacharach (1991) conclude: "When we focus on what professionals do, there is every reason to believe that teaching is among the most difficult, demanding, and (potentially) highly skilled professions" (p. 11).

The teacher education program at UAHuntsville focuses on developing its teacher candidates into professional educators. In order to do this, we focus on developing professionalism through three specific avenues: Collaboration and Relationships, Reflection and Professional Development, and Professional Dispositions and Conduct. It is our belief that developing these attributes and skills in our teacher candidates is of the utmost importance.

Professionalism through Collaboration and Relationships

The term "collaboration" is a buzzword with education. It is touted as a mechanism for school reform (Dowell et al., 2000) and an instrument in which full-service schools can be created (Boulter, 2002; Hill, 2004). Friend and Cook (2004) define interpersonal collaboration as "a style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work toward a common goal" (p. 7). Collaboration is characterized as:

- Voluntary,
- Requiring parity among participants,
- Based upon mutual goals,

- Depending on shared responsibility for participation and decision making,

- Sharing resources, and

- Sharing accountability for outcomes (Cook & Friend, 2004).

The teacher education program at UAHuntsville focuses on developing the skills, attitudes, and knowledge necessary for the teacher educators to be able to function in a collaborative atmosphere. This means that the student teachers received focused instruction on how to collaborate with other general education teachers, special education and ELL educators, paraprofessionals, and other education professionals. The concept of collaboration is taught within all courses but is directly taught in ED 301 - *Introduction to Education,* ED 309 - *Classroom Management,* EDC 301 and 593- *Teaching Exceptional Children,* and EDC 311 - *Instructional Strategies*.   Collaborative/special education teacher candidates receive further direct instruction in EDC 321 - *Collaborative Consultation*.

As well as teaching students how to collaborate with other educators, we also concentrate instruction on establishing respectful and productive relationships with parents/guardian and community. In courses such as EDC 301 - *Teaching Exceptional Children,* ED 430/530 - *Applied Multiculturalism*, and the internship seminars, teacher candidates are taught how to interact with parents/guardians, how to work on community change, and essentially how to advocate for the students.

Professionalism through Reflection and Professional Development

Described repeatedly in studies of teacher effectiveness, the role of reflection most often involves a careful review of and thoughtfulness about one's own teaching process (Stronge, 2002). Self-evaluation and self-critique are introspective tools most often used by teachers to consistently improve lessons, discover ways to teach particular children, and experiment with new instructional approaches to better meet the needs of learners. Thoughtful questioning, generated by research, guides the reflective practitioner and, when practiced on a consistent basis, can lead to lifelong professional learning. Additionally, critical reflection translates into enhanced teacher efficacy and educator confidence in their ability to facilitate learning and understanding of content and context by students (Stronge, 2002). Critically reflective teachers are able to stand outside their practice and see what they do in a wider perspective. They possess a well-grounded rationale that drives practice, which they can rely upon to help them make difficult decisions in unpredictable situations. This rationale, a set of critically grounded core

assumptions about what and why one does what one does, grounds teachers in a moral, intellectual, and political system and gives an organizing vision of what they are striving to accomplish (Brookfield, 1995). If reflection is to be valued by teacher candidates as a worthwhile attribute for their professional development, they must experience it as a logical consequence of learning to teach; not as a generative process skill, but as a learning tool to address the uncertainties of teaching practice.

The work of Schon (1987) documents the importance of the reflective cycle outlined by John Dewey (1933) as an appropriate lens to view teacher candidate thoughts and actions in the development of reflective practice: suggestions, problem, hypothesis, reasoning and testing. Loughran (1996) builds upon Dewey's reflective cycle to define reflection as "the purposeful, deliberate act of inquiry into one's thoughts and actions through which a perceived problem is examined in order that a thoughtful, reasoned response might be tested out" (p. 21). Reflection becomes effective when it "leads the teacher to make meaning from the situation in ways that enhance understanding so that she or he comes to see and understand the practice setting from a variety of viewpoints" (Longhran, 1996, p. 36). Learning from and through experiences is important for teacher candidates if they are to develop the skills of reflective practice. An overt linkage between reflections and teacher candidate teaching experiences is crucial as they anticipate reflection upon future practice and as reflection becomes internalized. Generally, as teacher candidates develop their reflective process, they experience a shift in their concerns as the focus of critical reflection "moves from themselves to their students" (Loughran, 1996, p. 191) and the quality of reflection noticeably improves.

Van Manen (1997) has suggested a hierarchical model of levels of reflectivity paralleling the growth of the individual teacher from novice to expert or master teacher. Judith Irwin (cited in Brubacher, Case & Reagan, 1994) advocates that a reflective/analytic teacher is one who makes teaching decisions on the basis of a conscious awareness and careful consideration of (1) the assumptions on which the decisions are based, and (2) the technical, educational, and ethical consequences of those decisions. These decisions are made before, during, and after teaching actions. In order to make these decisions, the reflective/analytic teacher must have "an extensive knowledge of the content to be taught, pedagogical and theoretical options, characteristics of individual students, and the situational constraints in the classroom, school, and society in which they work" (cited in Brubacher, Case & Reagan, 1994, p. 24).

From teachers' perspectives, believing in students and actively engaging them in their learning lead naturally to thinking about and reflecting on teaching (Escalante and Dirmann 1990). This process includes continually reexamining how and why they teach as they do, and what they can do to facilitate even greater student learning (Bain 2004). Recording reflections about how smoothly a class is organized, if content and questions are presented in coherent and understandable ways, and how actively engaged and intellectually involved students are helps teachers think critically about what is happening during their classes (Keefer 2002).

In addition to gaining skills as a reflective practicioner, beginning teachers who have earned their teaching credentials through a comprehensive teacher education program, as opposed to alternative methods for certification, have several advantages over their colleagues. One extremely significant advantage, is that they have had more formal educational opportunities to learn about students' physical, cognitive, and emotional development. Candidates also have the opportunity to familiarize themselves with several approaches to encourage both intrinsic and extrinsic motivation in students. These opportunities occur in stages over a period of several semesters.

Teacher candidates learn about students' development in several core education courses, but particularly in ED 308 -*Educational Psychology,* EDC 301 and 593 - *Introduction to the Exceptional Child, and in* PY 201 - *Life Span Development - a course required of all undergraduate teacher education candidates..* These classes help candidates gain perspective on a wide range of issues; for example, considering the effects of fetal alcohol syndrome, hunger or drugs on child development.   Teacher candidates must enter the profession understanding the stages of normal human development but also understanding additional factors that may impact that development. Only by gaining a thorough understanding of human development are teacher candidates prepared to understand and implement learning theories and pedagogical techniques, and only then are they adequately motivated and prepared to modify instruction as needed, for all students. While teacher candidates are enrolled in these classes, they are also involved in field placements in which they work directly with children or young people and are assigned to: 1) write evaluations of the students' current developmental state; 2) make recommendations concerning the types of instructional interventions needed; and 3) whenever possible, implement and evaluate these interventions under the supervision of the cooperating classroom teacher. This process is exemplified in the *Study Buddy Program,* a co-operative program in which

UAHuntsville teacher candidates tutor elementary students enrolled in Ridgecrest, while the candidates are enrolled in ED 308 - *Educational Psychology.*The UAHuntsville TEP faculty continues to expect teacher candidates to exhibit knowledge and understanding of student development issues as they prepare and deliver lessons in their content methods courses. Candidates are evaluated according to whether the lessons that they design are developmentally appropriate for the intended student audience and whether they demonstrate that they are able to modify the lessons to accommodate other individual students' developmental requirements which they are likely to encounter in a real classroom environment. Candidates are also evaluated extensively during their student teaching internship concerning their abilities to articulate their understandings of student development to cooperating teacher and the university supervisor, to use this understanding in developing and delivering classroom instruction, and to apply this understanding in their classroom interactions with students.

Fostering an Ethic of Caring and Empathy

Caring is the very bedrock of all successful education. Horace Mann has stated, "Teachers teach because they care. Teaching young people is what they do best. It requires long hours, patience, and care" (Lumpkin, 2007, p. 158). The theory of the Pygmalion effect, or self-fulfilling prophecy, when applied to education posits that if teachers continuously show that they believe in students' abilities, almost all students will respond with greater effort (Lumpkin, 2007). Caring teachers nurture relationships with students through affirming students' efforts and talents. These teachers realize that learning is much more likely to occur when positive, reinforcing comments outnumber critical comments. While teachers will, at times, provide constructive critiques of the performances of students, caring teachers persistently reward the efforts of students, their learning from mistakes, and their not giving up even though they sometimes struggle to learn. Caring teachers' expectations contribute to students' feelings that their efforts will be rewarded as learning becomes more meaningful.

Implicit within an ethic of caring are four major interrelated components crucial to teacher preparation and hence P-12 schooling: modeling, dialogue, practice, and confirmation (Noddings, 1992; 1984). First, teacher educators must show teacher candidates how to care in our own relations with the candidates, who in turn must model the creation of caring relations with students. Second, our dialogue must be open-ended and reflects a common search for understanding, empathy, or appreciation. Continuing dialogue builds up a knowledge of one

another that serves to guide our responses. Third, attitudes and perspectives are shaped, at least in part, by experience. Therefore, planned opportunities for teacher candidates to gain skills in care-giving and to develop the dispositions of caring must be provided if they are to develop this capacity. Practice in caring can transform schools and society. Mezirow and colleagues state: "We must begin with individual perspective transformation before social transformation can succeed" (cited in Cooper, 1995, p. 127). Cooper (1995) reiterates that change must begin with educators themselves: "[…] *until we have come to grips with our true selves, we cannot take on the responsibility for changing our students"* (p. 127). Fourth, confirmation (Buber, 1970) refers to an act of affirmation and encouragement of the best in others. Teaching requires continuity and connectivity between the care-giver and the cared-for.. To become sensitive to the best self of each student, a teacher must take time to listen carefully to each student's innermost aspirations. Teacher educators must play a major role in preparing teacher candidates to "handle affective education sensitively and effectively" (Noddings, 2002, p. 153).

Stronge's (2002) synthesis of research on caring teachers provides additional direction to the development of caring and empathic teacher candidates:

- Caring teachers who know their students create relationships that enhance the learning process.
- Effective teachers consistently emphasize their love for children as one key element of their success.
- Teachers who create a supportive and warm classroom climate tend to be more effective with all students.
- Caring teachers are intentionally aware of student cultures outside the school.
- Caring teachers truly believe that each student has a right to a caring and competent teacher.
- Caring teachers appropriately respect confidentiality issues when dealing with students.
- Caring teachers regard the ethic of care and learning as important in educating to their full potential. (p. 150)

Caring is a necessary ingredient for any community, especially a community of learners, to become a democratic one. Thayer-Bacon and Bacon (1998) reiterate this belief: "When people are cared for and can make other people feel cared about, then the opportunity for a democratic

community is more complete" (p. 31). Gay (2000) sums up the characteristics of both caring and noncaring teachers:

> Caring teachers are distinguished by their high performance expectations, advocacy, and empowerment of students as well as by their use of pedagogical practices that facilitate success. The reverse is true for those who are noncaring. Their attitudes and behaviors take the form of low expectations, personal distance, and disaffiliation from students, and instructional behaviors that limit student achievement. Just as caring is a fundamental pillar of effective teaching and learning; the lack of it produces inequities in educational opportunities and achievement outcomes for ethnically different students. (p. 62)

Demonstration of Professional Leadership

The role of teacher education programs in the preparation of teacher leaders is significant in the continuum of professional teacher development. The expectation of leadership as a teacher's responsibility should be cultivated early in initial preparation (Mooney, 1994). Katzenmeyer and Moller (2001) believe a "sleeping giant" of teacher leadership exists that can serve as the catalyst to propel school reform and renewal into the next century. By tapping the energy of teacher leaders as change agents of school renewal, reform efforts can succeed. They postulate a four-pronged, nonlinear systematic process for development of teacher leadership: (1) personal assessment of one's own beliefs, (2) study of the change process in the context of schools, (3) development of influence strategies, and (4) planning and design for action.Teachers are being challenged to engage in collaborative leadership. Katzenmeyer and Moller (2001) see teacher leadership as having three main facets:

- leadership of students or other teachers: facilitator, coach, mentor, trainer, curriculum specialist, creating new approaches, leading study groups;
- leadership of operational tasks: keeping the school organized and moving towards its goals, through roles as Head of Department, action researcher, member of task forces;
- leadership through decision making or partnership: membership of school improvement teams, membership of committees; instigator of partnerships with business, higher education institutions, LEAs, and parent teacher associations

This issue of collaborative leadership also represents a shared challenge to make schools serve the democratic ideal. When schools engage in reform, teachers recognize the need to work collaboratively with colleagues, other professionals, business and community people, parents, and students. Teachers are also challenged to collaborate in the creation of "integrated curriculum, in making links between the school and the workplace, and in developing their ability to use technology as a resource for teaching and learning" (Diez,. 1996, p. 24). They are also challenged to recognize self-assessed needs for continuing professional development and to initiate opportunities for growth. Teacher leaders are learners who "challenge the status quo, inspire a shared vision, enable others to act, model the way, and encourage the heart" (Kouzes & Posner, 1995, pp. 8-17).

Lambert (2003) outlines five assumptions useful in building leadership capacity among teacher candidates:

(1) Leadership may be understood as reciprocal, purposeful learning in community.

(2) Everyone has the right, responsibility and capability to be a leader.

(3) The adult learning environment in the school and district is the most critical factor in evoking leadership identities and actions.

(4) Within that environment, opportunities for skillful participation top the list of priorities.

(5) How we define leadership frames how people will participate.

(6) Educators are purposeful—leading realizes purpose.

The TEP at UAHuntsville consistently engages our teacher candidates to be leaders through professional activities. As a department, we believe that leaders in education should have a strong foundation in the knowledge and skills necessary to be successful in our profession. Thus, we focus on the development of the foundational knowledge, skills, and dispositions are part of the program. However, we believe that we are providing the tools that are necessary for our students to be successful as outlined by Day and Harris (2003). They described four discernible and discrete dimensions of the teacher leadership role. First, the teacher must be proactive in professional development. We meet this dimension by providing our students with opportunities for unique professional development opportunities such as the Alabama Reading Initiative (ARI) and the Alabama Math, Science, and Technology Initiative (AMSTI). We also provide detailed information and opportunities to be members of

professional organizations.   One of the many features of our program is our commitment to showing students where to obtain valuable professional development.

The second dimension focuses upon participative leadership where all teachers feel part of the change and development and have a sense of ownership. Regardless of the school climates at this time, the teacher education program at UAHuntsville believes that teachers flourish when they have ownership of their classroom. Through courses such as ED 305 - *Foundations of Education,* ED 430/530 - *Applied Multiculturalism,* and EDC 301 - *Teaching Exceptional Children*, we direct instruction on being a "change agent" within the schools. Outside of the classroom, we sponsor organizations such as the Student Alabama Educators Association and the Student Council for Exceptional Children which concentrate on change within schools.

The third dimension is that teacher leaders are sources of expertise and information. The faculty stress to our students that the cooperating teachers in the local school districts are sometimes the best sources of new knowledge. Through the field observations required in most of our courses, the faculty asks our students to interact with the cooperating teacher in various ways from just observing to being critiqued after teaching a lesson. The final dimension is forging close relationships with individual teachers which mutual learning takes place. The TEP at UAHuntsville meets this dimension in two ways. First, the students are placed in cohorts throughout the program and are required to work collaboratively on multiple projects. This time working and sharing together demonstrates the types of professional relationships needed in education. Secondly, we strongly urge our students to develop strong relationships with every cooperating teacher they meet. It is through these interactions that the greatest learning takes place.

Performance Expectations: Goals and Performance Outcomes of the Unit

Goals

As stated earlier, the major goal of the department is to prepare teachers who are exceptionally well-grounded in disciplinary, pedagogical, and professional knowledge, who understand, and are prepared to address the needs of all learners, and who are committed to serving as leaders in the educational community to ensure that all students receive a high-quality public or private education.

In addition we also expect the department to provide an environment that encourages faculty to model sound pedagogy, engage in research and scholarly activities, and become leaders within their areas of expertise.

Finally, we seek to make our teaching, research, and service available to the entire community in order to meet the changing needs of schools, organizations, and professional communities in our region, state, nation, and international community.

Aligning the Education Unit's Goals and Outcomes with State and National Standards

The Department of Education is committed to a standards-based program that prepares teacher-candidates for effective professional practice. The undergraduate teacher preparation programs are aligned with standards developed by the Interstate New Teacher Assessment and Support Consortium (INTASC), criteria established by the Alabama Quality Teaching Standards (AQTS) and EDUCATE Alabama developed by the Alabama State Department of Education, and the NCATE standards. The graduate teacher education programs are aligned with standards developed by the Alabama State Department of Education, the National Board of Professional Teaching Standards and EDUCATE Alabama. (See Table 4). With Alabama's adoption of the Common Core State Standards in English language arts and in mathematics, the Teacher Education Program at UAH has worked to modify relative course content to address any necessary changes in the classes in which our students are enrolled. In 2011, the National Research Council (NRC) developed a framework for K-12 science education and will be in the process of developing science standards that are aligned with this framework. Any of the education courses that the TEP students take address the most recent national and state standards, and course content and pedagogy are informed by research-based practices on how students learn.

Table 4

UAH Teacher Candidate Competencies	Alabama Quality Teaching Standards (AQTS)	*EDUCATE* Alabama	INTASC Principles	National Board for Professional Teaching Standards (NBPTS)
Content	**1c. Content Knowledge** 1 Academic Disciplines 2 Curriculum	#1 – Content Knowledge	#1 – Content Pedagogy	#2 Teachers know the subjects they teach and how to teach those subjects to their students.
Pedagogy: **a. Teaching** **b. Assessing Student Learning** **c. Managing the Learning Environment**	**2c. Teaching and Learning** 2 Organization & Management 3 Learning Environment 4 Instructional Strategies 5 Assessment **3c. Literacy** 2 Reading 3 Mathematics 4 Technology	#2a –Organization and Management of Learning #2b - Using Instructional Strategies to Engage Learners #2c – Assessment of Learning #3b – Development of Reading Skills & Accessing K-12 Literacy #3d – Utilizes Technology	#5 – Motivation & Management #7 – Planning # 8 - Assessment	#2 Teachers know the subjects they teach and how to teach those subjects to their students. #3 Teachers are responsible for managing and monitoring student learning.
Critical Thinking		#3c – Development and Application of Mathematical Knowledge & Skills Across Content Areas	#4 - Instructional Strategies	#2 Teachers know the subjects they teach and how to teach those subjects to their students.
Diversity	**2c. Teaching and Learning** 1 Human Development **4c. Diversity** 1 Cultural, Ethnic, and Social Diversity 2 Language Diversity 3 Special Needs 4 Learning Styles	#4a – Cultural, Ethnic, and Social Diversity #4b – Language Diversity #4c – Special Needs #4d – Learning Styles	#2 – Student Development #3 - Diverse Learners	#1 Teachers are committed to students and their learning. #5 Teachers are members of learning communities.
Communication	**3c. Literacy** 1 Oral and Written Communication	#3a – Oral and Written Communication	#6 - Communication	#5 Teachers are members of learning communities.
Professionalism	**5c. Professionalism** 1 Collaboration 2 Continuous, Lifelong Professional Learning 3 Alabama-Specific Improvement Initiatives 4 School Improvement 5 Ethics 6 Local, State, and Federal Laws and Policies	#5 - Professionalism	#9 –Reflective Practice & Professional Development #10 – School & Community Involvement	#4 Teachers think systematically about their practice and learn from experience. #5 Teachers are members of learning communities.

Alignment with Professional Standards

The faculty are committed to aligning the unit's goals and outcomes with the standards of relevant professional organizations. The following are representative of the professional associations with which the unit's goals and outcomes are aligned:

- The National Science Education Standards (NSES). Available online at http://www.nap.edu/readingroom/books/nses

- Principles and Standards for School Mathematics. The National Council of Teachers of Mathematics (NCTM). Available online at http://standards.nctm.org

- The International Standards for Technology Education. Available online at http://www.iste.org

- The Standards for the English Language Arts. Available online at http://www.ncte.org

- The International Reading Association. Available online at http://www.reading.org

- The Council for Exceptional Children. Available online at http://ww.cec.sped.org

- National Council for Social Studies http://www.ncss.org/

Assessment Framework

The most significant effort of our faculty since 2005, has been in the implementation, evaluation, and refinement of our assessment system. We have examined our program goals, courses, and feedback from students and community stakeholders as part of our ongoing assessment process. As a result we have refined our assessment of candidate competencies in our courses and internships, retooled our dispositions assessments, developed new subject specific methods courses for all secondary candidates, added an applied multiculturalism course to all programs, and implemented a classroom management course for alternative master's candidates. We have also improved our system of tracking candidate field experiences and the mentor teachers for our candidate placements.

The Department of Education embraces the synergestic relationship between learning and assessment. We believe that assessment is crucial for helping people learn, is necessary for effective teaching and for creating a quality learning environment for our faculty and teacher candidates. The department bases its assessment plan on the Conceptual Framework while aligning its strategies with national and state standards of various programs.

The Department of Education's system for assessment includes two complementary purposes: (1) improvement of teacher candidate learning and performance, and (2) improvement

of programs, program planning, and program development. By collecting and compiling information on the extent to which we are successful in moving toward the achievement of the defined mission, goals, and purposes of the department, we then have the essential information for planning, review and revision of the program

The Department of Education's assessment processes seek to be:

- Integrated
- Multidimensional
- Fair and unbiased
- Participatory, and
- Comprehensive.

Integrated

Assessment efforts within the Department of Education align with the mission and goals of the Department, College of Liberal Arts, and the University. Academic programs, student support services, and other college departments collaborate to fulfill the mission and goals of the TEP.

Multidimensional

The department's assessment system relies on multiple pieces of evidence, systematically gathered from a variety of perspectives over time. Doing so allows us expand our definition of success to include not only candidate progress in each of the six competency/outcome areas, but also the quality of learning opportunities and experiences we provide for our candidates (Zhao, 2009).

Fair and Unbiased

The department utilizes many external and internal assessment instruments and data points in our assessment processes, therefore eliminating bias in the evaluation process.

Participatory

The Department of Education's assessment program is an on-going collaborative effort among faculty, students, staff and administrators. The Department follows a combination of

centralized/decentralized approach to assessment and evaluation, with department and faculty groups taking the lead to establish and assess student outcomes for individual programs. Faculty participation in setting and revising educational outcomes and designing appropriate assessments for those outcomes is critical to the growth of the students and the integrity of the program. This is consistent with the research that advocates active participation of faculty in every step of the processes of assessment: selecting measurement devices, collecting data, interpreting results, and using the results to improve the program (Pratt, 1995).

The role of the administration rests more in coordination and documentation of assessment activities occurring at the department level, coordination of college-wide and university-wide assessments, and provision of college and institutional data to various departments and programs. Specifically, the Dean of the College acts as a resource and liaison to other departments in the College of Liberal Arts, departments and colleges across campus, as well as the administration. Additionally, the Dean's office facilitates implementation of plans and offers assistance in the development of assessment methodologies, provides guidance in prioritizing activities, and organizing college-wide research projects designed to provide information for all constituencies. It is the responsibility of the department administration to ensure that assessment activities provide useful and usable data in a cost-effective manner.

Comprehensive

Assessment activities within the department focus on these three areas:

- Students: Outcomes Assessment for Teacher Candidates.

- Program: Academic Program Evaluation

- Faculty: Faculty Evaluation.

When considered together, these areas assess the effectiveness of the unit. However, the highest priority is placed on assessment of teacher candidates.

Teacher Candidate Assessment

The assessment of teacher candidates in the Teacher Education Program is based on multiple assessments which occur at designated points during the program. Supporting our belief that candidates' learning and experiences develop over time, we have identified five

decision points to guide our assessment of teacher candidates. At each point in the program, faculty review candidates' growth in knowledge, abilities, and dispositions, as well as feedback from others, and then make recommendations about continuing in the TEP. While the indicators are different for initial undergraduate and alternative graduate candidates and advanced graduate candidates, the process is essentially the same.

Decision Point 1.

Assessment at this level focuses on those indicators identified by the Teacher Education Program that allow entry into the Department of Education. Eligibility to begin taking undergraduate courses in the Teacher Education program is determined after completion of the sophomore year. Eligibility for entry into the graduate programs requires full admission to the university and the department that houses their major.

Decision Point 2.

Eligibility for formal admission into the Teacher Education Program occurs after candidates complete their first block of professional education courses. Using admission criteria that include candidates' self-evaluations, faculty evaluations, as well as external faculty and mentor teacher evaluations, department faculty make recommendations on whether or not to admit candidates to the TEP.

Decision Point 3.

Continuing in the Teacher Education Program implies ongoing evaluation of the candidate's progress and qualifications for teaching. Monitoring of candidate progress occurs at the end of each semester when faculty review course data, field experience data, and dispositions assessments. Assessment activities in the initial teacher education programs focus on the six teacher candidate proficiencies and dispositions previously stated in the conceptual framework for guiding the Teacher Education Program. These proficiencies or outcomes and dispositions guide the initial teacher preparation program. Assessments performed with a focus on these proficiencies are indicative of progression throughout the Teacher Education Program. Course syllabi clearly reflect the expected course outcomes and identify the competencies that are introduced or reinforced upon completion of the course. Assessment activities in the advanced

education programs focus on the National Board of Professional Teaching Standards. These principles guide the advanced programs; course syllabi reflect principles addressed in each class.

Decision Point 4.

Decisions about admission to the internship are based on multiple data points, including the six candidate proficiencies, standardized test data, and dispositions. Candidates accepted into the internship have acquired core knowledge and skills and have demonstrated a readiness to synthesize and apply what they have learned in their professional education courses as they assume greater responsibility for student learning.

Decision Point 5.

Upon completion of all UAH and Department of Education requirements, including successful completion of the internship and portfolio exit review, candidates are eligible to be recommended for an Alabama teaching certificate.

In addition to assuring that graduates of initial and advanced certification programs have demonstrated sufficient knowledge and skill for their level of preparation, it is also imperative that candidates demonstrate critical dispositions. Therefore, candidate dispositions are also systematically evaluated. . When a candidate is found to be lacking a critical disposition, we have a process for bringing this deficiency to the attention of the candidate and for providing guidance in how to correct the problem. Candidates are given opportunities to demonstrate these attributes in their university courses, in their methods classes, in the clinical experiences, and in the student teaching internship. We want to provide candidates with many opportunities to demonstrate these attributes, and we want to be able to make constructive recommendations when a problem arises. Therefore, candidate commitments and dispositions are assessed each semester, beginning during their first block of courses. Education faculty, field experience mentor teachers, and external faculty complete candidate dispositions assessments according to the plan set forth in the TEP Handbook. Faculty meet each semester to review the dispositions assessments and make recommendations regarding individual candidate's dispositions. The result may be the creation of a Professional Development Plan (PDP), which the student must follow; failure to follow recommendations in a PDP may result in dismissal from the Teacher

Education Program, as defined in the department's Decision Points. (Undergraduate and Alternative and Advanced Master's Handbooks)

Assessment Methodologies

Assessment measures provide the vehicle to collect data for evaluation of effectiveness. It is the belief of the TEP that multiple measures assure a well-rounded and balanced assessment framework related to student learning and performance. Although the Department of Education recognizes the need for standardized testing, it also realizes that alternative assessments provide a more balanced picture of teacher-candidates' performance, program effectiveness, and faculty performance. Standardized tests provide limited measures of learning, narrow the curriculum, are ineffective diagnostic tools, and generally do not reflect the diversity of students' background and experiences. Both qualitative and quantitative means of assessment are used to provide a holistic judgment concerning teacher candidates' progression through the Teacher Education Program. Assessment activities in the Teacher Education Program at UAH focus on both content standards and performance standards. Content standards identify what is important for teacher candidates to learn and performance standards refer to what students should be able to do with what they know. It is necessary that performance indicators be varied to accommodate the diverse and complex kinds of teacher candidate learning. The following methodologies are used throughout the Teacher Education Program; however, these methodologies are subject to change as determined by the Alabama State Department of Education. The following table outlines direct and indirect indicators of candidate learning in the Teacher Education Program.

Methodologies Used in the Teacher Education Program

Direct Indicators of Candidate Learning	Indirect Indicators of Candidate Learning
• Standardized cognitive tests of teacher candidates (Alabama Prospective Teacher Test (APTT) - Basic Skills Assessment & Praxis II Subject Assessments, SAT, ACT, GRE, MAT). • Comprehensive exams in a teacher candidate's area of study for alternative and advanced master's programs. (Teaching field departments use a variety of techniques such as oral examinations, multiple choice tests, performance assessments, and written examinations. • Course-embedded evaluations • Capstone courses (internships) • Case study analyses • Portfolio analysis and review • Videotape evaluation and performance • Performance presentations (projects, research, microteaching, internships, etc.)	• Candidate dispositions and attitude inventories • Cooperating teacher surveys • Alumni surveys • Entry and exit interviews • Student surveying • External reviews (area principals and cooperating teachers; others)

Faculty and Staff Evaluation

Faculty, administration, and staff carry collective responsibility to fulfill the mission of the Department of Education. Their collective performance contributes to the overall effectiveness of the Teacher Education Program; therefore, thorough evaluation is a necessary component of the Teacher Education Program. Staff and administrative assessments occur through annual institutional appraisals as outlined in the *UAH Staff Handbook* (available online at http://www.uah.edu/admin/ HR/policies/staff%20HandBook.pdf).

Faculty performance criteria and guidelines in the Department of Education follow the guidelines for retention, promotion, and tenure as set out in the *UAH Faculty Handbook* (available online athttp://www.uah.edu/facsen/Faculty%20HandBook/

TOC2.htm). These guidelines reflect the Department of Education, College of Liberal Arts, and University missions. Faculty members are evaluated by a committee of peers according to their contributions to the mission of the University relative to the areas of teaching, research, and service. Department chairs and faculty review contributions at the end of each evaluation period relative to promotion, tenure, and retention. Tenured faculty and lecturers also receive feedback from the chair based on the date included in their annual Faculty Activity Reports.

Additionally, students evaluate the effectiveness of their instructors' teaching at the completion of each course each semester, using an evaluation tool that is common for all instructors across campus. This assessment document is a major component in faculty evaluation and part of the institutional assessment framework.

Unit Evaluation

The Department of Education at UAH uses multiple internal and external assessments to determine quality and inform decision-making about individual candidates, programs, and unit operations. Data which assess the performance of individual candidates is aggregated and used in the program review process. Additional data is collected from candidates and other stakeholders to inform the assessment of the units operations. The faculty is committed to utilizing assessment results to improve programs. Faculty also recognize that assessing professional education

candidates' learning is a *collective* responsibility and commitment, and that changes resulting from the systematic use of assessment data results in the renewal of programs.

In terms of assessment of unit performance, the assessment system is comprised of the following:

- Data that we aggregate from *candidate performance* that provides information on the success of our programs and our department in critical competency areas (e. g., percentage of candidates scoring at the proficient level or higher on each competency area during student teaching or internship, percentage of candidates identified as demonstrating inappropriate dispositions prior to student teaching, percentage of students removed from the TEP due to failure to demonstrate appropriate dispositions after PDP and remedial efforts).

- Data we gather and compile from other assessment sources that provides information on the *success of our program and department* within critical outcome areas (questions on alumni surveys that are directly tied to competency areas, questions on employer surveys that are directly tied to competency areas, etc.).

- Data that we gather and compile from assessment sources that provides information about the *general functioning and effectiveness of programs and the department* (percentage of students passing the Alabama Prospective Teacher Testing Program's Basic Skills and Praxis II assessments, percentage of teachers employed, evaluation of faculty teacher teaching performance (SIE), general analysis of strengths and weaknesses of candidate preparation provided by candidates completing their internships.

- Data that we gather and compile concerning processes and progress relating to *goals for scholarship, technology, diversity, faculty governance and administration* of our programs (e.g., minority faculty and student numbers, recruitment efforts, planning to meet technology needs, evidence of faculty productivity in service and scholarship).

- Data that we gather and compile that demonstrates that we are *making and monitoring informed improvements* to our programs and department.

- Data that we gather and compile that demonstrates *the degree to which we provide service* to area schools.

- Data that we gather and compile that evaluates the *degree of success of all programs in achieving the mission and vision* of the department.

- Data that we gather and compile that evaluates the *degree of success of all programs in serving the conceptual framework*.

Internal and external processes are used to document and evaluate the success of programs and the unit personnel preparation program in general. The internal processes include:

- Aggregating artifact scores across candidates in order to determine strengths and needs of programs and candidates.
- Examining the relationship between entry data, course grades, and student teaching evaluation to assure consistency of judgments.
- Candidate evalutions of courses.
- Exit surveys of candidates in initial teacher education programs.
- Documentation of faculty productivity regarding teaching, scholarship, and service.

External processes include:

- Surveys of principals employing our graduates
- Survey of alumni

Data from both internal and external sources are collected, compiled and reported to department faculty and stakeholders in order to monitor the implementation of our conceptual framework, evaluate candidate performance along competency areas and faculty performance in teaching, research, and service; and to facilitate program improvement.

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