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2. THE SEVEN PRINCIPLES OF LEARNER-CENTERED PROFESSIONAL EDUCATION PROGRAMS

*Teacher Education for Students with
Exceptionalities in Texas, U.S.A.*

INTRODUCTION

In 2002, the National Council for the Accreditation of Teacher Education (NCATE) identified six standards for accrediting teacher education programs, which then prompted many programs to restructure and incorporate the new standards (NCATE, 2002). These standards included: candidate knowledge, skills, and dispositions; assessment system and unit evaluation; field experiences and clinical practice; diversity; faculty qualifications, performance, and development; and unit governance and resources. Increases in accountability and competition from alternative certification programs led many university teacher education programs to restructure from a traditional model to a field-based clinical model. Baylor University used this opportunity to shift to a collaborative teacher education program where the local schools shared responsibility for candidate preparation and provided a field placement for students as early as the first year in the program. In exchange, Baylor provided faculty expertise and teacher candidates who were instructed in the seven principles of the Learner-Centered Professional Education Program.

Outline of the Chapter

This chapter will explore the cognitive and teacher education research supporting each of the seven principles of the conceptual framework and provide examples of each principle from the special education and gifted education programs. By connecting the principles included in the conceptual framework to teaching practices in two programs for training teachers in exceptionalities, field-work and assignments become a natural extension of practices at the university. This chapter will begin by explaining the seven principles of the Learner-Centered Professional

Education Program and the organization of the programs for teaching children with exceptionalities. The remainder of the chapter will address the research basis for the seven principles and specific practices within the teacher education programs for gifted and special education. It includes details such as:

- Practices which integrate university and field-based instruction in teacher education programs.
- Teacher education practices that encourage the use of assistive technology for instruction and educational support.
- Methods of using constructivist and direct instruction designs to support student learning.
- Integrating assessment with instruction and learning in classrooms with diverse populations.
- Instructional techniques that allow for developmental differences among candidates in the teacher education program while maintaining a high quality of instruction for students served through field-based placements.

Historical Background

Baylor University is a private, Christian research university located in Waco, Texas with a School of Education that serves approximately 450 undergraduate teacher education students (i.e., candidates) through the departments of Curriculum and Instruction (C&I) and Educational Psychology (EDP) (SOE, 2015). The C&I Department primarily serves candidates who are interested in teaching general education students and EDP serves candidates who would like to teach exceptional students (e.g., those with disabilities and those with gifts and talents). The two departments share resources and personnel, but each maintains unique features that are most beneficial to the population of students served.

When Baylor's teacher education program transitioned from a traditional, university-based program to a field-based one, both departments worked together to establish the conceptual framework of the Learner-Centered Professional Education Programs. Seven principles of learner-centered instruction guided the design of the conceptual framework:

- Classrooms and schools must be learner centered, thus creating a positive environment for learning.
- Formative assessment provides information about the student and assists in designing and adapting instruction.
- A deep foundation of factual knowledge must be organized conceptually to facilitate its retrieval, application, and transfer.
- Strategies are important in learning to solve problems and in becoming an independent, effective teacher.
- Learning is developmental and influenced by the context in which it takes place.
- Collaboration is important in creating a diverse learning community.
- Reflection deepens the understanding of effective instructional practices.

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Although this was a shared initiative designed to make all programs field based, the special education and gifted programs had been field based since 1993 with the establishment of the first Professional Development School (PDS) in the Waco Independent School District (WISD). The PDS was fully staffed with a university liaison from Baylor and a site-based coordinator from WISD, both of which served to support faculty and Baylor students at the school campus. The special education and gifted education programs hosted courses at the PDS every semester and served Baylor students from all levels of both programs. When the general education teacher education program moved to a clinical, field-based model in 2001, the programs in exceptionality used this transition to strengthen the existing field-based model and create additional opportunities for teacher education students to train in new and diverse settings. The new program is discussed in the following section.

THE ORGANIZATION OF THE TEACHER EDUCATION PROGRAMS FOR EXCEPTIONALITIES

The teacher education programs for candidates interested in teaching children with exceptionalities requires four years of training at the university and in the local schools. The placements in the schools range from tutoring a single student to teaching whole-class lessons in diverse classrooms. Candidates are required to provide instruction to students from a wide range of ages, abilities, and cultural backgrounds. Students move through a progression during their four years of training. The progression includes novice as a freshman and sophomore, teaching associate as a junior, and intern as a senior (see Figure 1, p. 12). As novices, candidates are expected to be developing in the four categories constituting the eighteen benchmarks created from the seven principles of learner-centered instruction and focusing on measurable behaviors that should be mastered by all new teachers. By the intern year, candidates are expected to be proficient in all benchmarks and have portfolio evidence of their growth and development.

First-Year Teacher Education Programming

Candidates interested in teaching students with gifts and talents or students with special educational needs begin training as freshman with the Introduction to Teaching, a course in pedagogy which includes an experience tutoring a student in a local school. The pedagogy course includes content on instructional strategies for tutorial instruction and student self-regulation in such settings. The content taught in the university course is practiced in a local school with a single student in elementary or middle school. A university faculty member supervises the teaching tutorial practicum and provides feedback on performance to the candidate. At this point candidates are considered novices because they are developing skills in building a

positive learning environment, using assessment for instruction, planning curriculum and instructional strategies, and using communication to enhance professional development.

Candidates also enroll in one or two technology in education courses during the freshman year. The first technology course is designed to teach education students about the electronic portfolio system that will be used to document learning and development over the next four years. In addition, the course teaches knowledge and skills needed to apply basic technology to teaching, such as the creation of video clips or multimedia presentations. The second technology course includes modules on assistive technology and advanced technology skills.

Second-Year Teacher Education Programming

During the sophomore year of teacher training, the programs for candidates interested in teaching students with exceptionalities began to diverge from the elementary teacher education program in order to provide more in-depth training with the population of interest. Candidates who would like to earn credentials to teach in special education focus on literacy and assessment in the sophomore year. During the first semester of the sophomore year, candidates complete a course on advance elementary literacy. The course includes instruction in literacy for students in middle to late elementary school who are struggling with any of the fundamentals of reading: phonics, phonemic awareness, comprehension, vocabulary, or fluency. Content includes typical and atypical reading development for the middle to late elementary student and candidates practice with a field placement teaching content-based literacy to one student at-risk for reading difficulties.

During the second semester of the sophomore year, candidates interested in special education enroll in a course on assessment and a second literacy course. The assessment course, Assessment of Students with Mild Disabilities, introduces formal and informal assessment and requires candidates to practice a variety of assessments with students in local schools. Information from the assessments is compiled into a case study on a learner who is at-risk for developing a disability in reading or written expression. In addition to the assessment course, candidates learn about primary and advanced literacy in the literacy course. The practicum for this course requires candidates to use assessment to design an instructional sequence and teach literacy to two struggling learners.

For candidates interested in teaching students with gifts and talents, the sophomore year includes a course in the Introduction to the Gifted Child. This course is designed to develop the teacher as a researcher, which was a specific need advocated for by local area certified gifted and talented teachers. Candidates learn the research process by teaching it to an individual student and then work with the student to complete an independent study. The candidates teach their individual student using pre-made lesson plans written by the program director and conduct their own research following their individual student's progress. By teaching research, candidates strengthen their

own understanding of the process and by conducting action research, they become producers of knowledge in the field.

Third-Year Teacher Education Programming

During the junior year, candidates are considered teaching associates because the skills in building a positive learning environment, using assessment for instruction, planning curriculum and instructional strategies, and using communication to enhance professional development, have progressed from developing to competent. At this point, candidates are required to teach small groups of students rather than conduct one-on-one or one-on-two tutorial sessions. This requires advanced skills in assessment, curriculum planning, instructional design, and instructional delivery. In addition, fostering student self-regulation requires more enhanced skills.

For candidates in the special education program, the junior year includes small group instruction in mathematics and inclusion teaching in science or social studies with middle school students as well as a placement in a high school life skills classroom. The placement in mathematics requires candidates to assess and plan a nine week intervention for middle school students with and without disabilities. The groups are formed based on the current level of performance of the students, which means each group may or may not have students with limited English proficiency, students with disabilities, students with dyslexia, or students who are struggling learners. In addition, candidates co-teach in a social studies or science inclusion classroom during the nine-week intervention. This experience requires candidates to modify instruction and assessments to meet the individualized educational plan for students with disabilities.

In the second semester of the junior year, candidates studying special education teach life skills at a local high school. Candidates use assistive technology, such as augmentive and alternative communication devices, and plan instruction in skills related to the students' individualized education plans. Since the students in this setting have more severe disabilities than the students taught in the first semester, candidates must learn and perfect different models of instructional delivery, such as least to most intrusive prompting and time delay.

For candidates who would like to teach students with gifts and talents, both semesters of the junior year contain a practicum in which the candidate spends approximately one hundred hours in a local PDS. These candidates teach both small and large groups of students and students with a range of abilities from highly gifted to average performing. During these group sessions, candidates work on differentiating instruction in the various domains, such as content, process, and product. The first semester of the junior year focuses on teaching literacy, social studies, and language arts with required methods classes in these areas. The second semester includes methods courses in mathematics and science. Combining the method courses with concrete practice in a clinical setting allows candidates to develop differentiation practices for all content areas and most levels of ability.

Fourth-Year Teacher Education Programming

The fourth year of the teacher education program in exceptionalities allows candidates to transition from a student to a teacher. Candidates complete two, fifteen-week internships designed to encourage transfer of learning from university courses into the public school classroom. Candidates are encouraged to request a grade-level or setting for this placement. The intern year is a continuation of the developmental progression demonstrated in the conceptual framework for this program. Candidates are expected to begin the experience as observers and gradually assume more responsibility for the classroom. The transition is encouraged by the use of seven co-teaching models that have defined roles for the mentor teacher and the candidate. These models include: one teach, one observe; one teach, one assist; parallel teaching; supplemental teaching; alternative teaching; station teaching; and team teaching. Each model encourages the candidate to assume a different role and by experiencing all models, the candidate will be well positioned to complete a week of whole-class teaching alone.

For candidates in the gifted and talented education certification cohort, the fall of the senior year includes a course on differentiation. This course teaches strategies for different content areas and the candidates create an interdisciplinary unit to illustrate what they have learned. The course also requires the completion of a functional behavior assessment of a student with challenges that may affect classroom management. During the spring semester candidates enroll in a course that describes the history, laws, policies, and models of gifted education. It also expounds upon differences for students that are twice-exceptional, meaning the individual is both gifted and expresses a disability, and those with disabilities. This course also includes instruction on collaboration between students, colleagues, and parents and as a product outcome, candidates must write a case study of a twice-exceptional learner as well as complete a program evaluation.

The senior year also includes two internships in the local schools: one teaching experience in a general education classroom and one for gifted and talented cluster or pullout groups. Parallel to the candidates in the special education strand, the candidates begin in the classroom as observers but transition to full time teaching by the end of the semester. The candidates continue to improve their practice by gaining responsibility and eliciting feedback from the classroom teacher and their internship facilitator.

*Benchmark Standards for
the Teacher Education Program*

During the internship university faculty observes all candidates and mentor teachers. They provide feedback on performance, thus ensuring that all candidates have mastered a basic set of skills and behaviors. All candidates complete an e-folio, or electronic portfolio, documenting their performance on eighteen indicators of good

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teaching known as benchmarks. The benchmarks are based on the seven principles of learner-centered education, which form the foundation of the teacher education program. The benchmarks are organized into four strands with a total of eighteen measurable outcomes that are graded as developing, competent, or proficient based on narrative and other evidence presented by the candidate. Benchmarks are completed each year of the teacher education program, but candidates only complete a full set of all eighteen benchmarks in the junior and senior years. Prior to this, all benchmark production is assumed formative and feedback is given to encourage further development. The results are used to conference with candidates and create personal growth plans designed to strengthen any weaknesses in skills or behaviors. The organization is as follows:

Strand 1 – Creating a positive learning environment

1. establishes expectations;
2. arranges space for safe and effective learning;
3. establishes small and large-group procedures, routines, and manages transitions;
4. prepares and manages materials and technology for effective learning;
5. keeps progress records in order to match and adapt curriculum to students;
6. uses reinforcement and correction to increase learning and show respect; and
7. paces lessons and activities to engage students.

Strand 2 – Assessment

8. matches assessment methods to knowledge, the curriculum, and student characteristics;
9. uses formative assessment to provide information regarding student achievement levels; and
10. communicates assessment information to students, parents, and other professionals.

Strand 3 – Curriculum planning

11. focuses students' attention on information;
12. organizes knowledge when planning instruction;
13. presents information for instruction that is related to assessment;
14. guides students' application of knowledge; and
15. provides opportunities for students to use information independently.

Strand 4 – Professional development and communication

16. participates in professional development;
17. is proficient in communication with students, parents, and other professionals; and
18. collaborates with parents and other caregivers.

In addition, each benchmark is designed to follow the developmental progression from novice to teaching associate to intern. As candidates develop, their presentations of evidence and narratives for each benchmark are graded by a more rigorous standard. All candidates are expected to be proficient in all eighteen benchmarks by the second semester of the intern year. Documentation used to complete the e-folio

of eighteen benchmarks may come from a variety of sources. It typically consists of feedback from mentor teachers and university faculty during observations, lesson plans graded by the university faculty, reflections completed by interns and graded by the university faculty, and student products resulting from intern teaching.

THE SEVEN PRINCIPLES OF LEARNER-CENTERED INSTRUCTION

Baylor University's teacher education program is designed to incrementally develop candidates' knowledge and skills using a framework that places the learner at the center of all experiences. The seven principles of learner-centered instruction are the foundation for the development of candidate knowledge and skills in all teacher education programs at Baylor. The remainder of the chapter will discuss relevant research from multiple fields and give examples of how each principle is manifested in Baylor's teacher education program for gifted, talented, and special education.

*Principle 1:
Classrooms and Schools Must Be Learner Centered
Creating a Positive Environment for Learning.*

Research Evidence and Theoretical Support

The pre-kindergarten-to-twelfth-grade learner is at the center of the conceptual framework for Baylor's teacher education program (Turner, 2011). As Henson (2003) stated, "learner-centered education involves the learner and the learning in the programs, policies, and teaching that support effective learning for all students" (p. 5). There are five principles for learner-centered education:

- Learning should be based on the experiences of the student.
- Experiences should be chosen based on each individual student's personality, interests, and understandings.
- Teachers should encourage and build the student's curiosity.
- Emotional learning helps solidify the input of knowledge.
- The learning environment should promote positive feelings, such as joy or risk-taking, rather than negative feelings of shame or fear.

Learner-centered education originated with philosophers such as Confucius and Socrates, who stressed the importance of the individual (ibid.). This would change dramatically with John Locke's idea of the blank slate, *tabula rasa*, the theory that people's experiences shape who they are rather than anything inherent or genetic (Buchmann & Schwille, 1983). In the late 1800's, John Dewey, an avid proponent of educational change, advocated that education is life and that the school should be the place to build upon both students' psychological and social states (Henson, 2003). In order to do this, Dewey claimed that education needed to be problem based to make

it applicable and emotionally rich, a concept now called “confluent” or “collateral” learning (ibid.).

Major psychologists have also advocated for the use of learner-centered education. In the 1960s, Arthur Combs suggested that to have healthy adults, schools should ensure their students are psychologically healthy with positive self-concepts by way of a learner-centered education (Combs, 1981). Russian psychologist Lev Vygotsky’s theory of constructivism aligned with this view. It discussed the use of active social and cooperative learning to promote problem solving (Jaramillo, 1996). Content becomes meaningful because of students’ interactions and through these interactions, students construct solutions with others. Jean Piaget’s (1986–1980) stages of cognitive development demonstrated the need to meet students where they are developmentally in order to help them find mastery of individual skills (Berk, 2014). Seeing students as individuals makes learning accessible and memorable.

Several practices of learner-centered instruction have an evidence base for supporting engagement of the disengaged learner and can be found in Baylor University’s teacher education program. The first learner-centered instruction strategy is acknowledging and using students’ prior experiences and learning when designing instruction. This strategy allows students to use existing frameworks to understand new knowledge (Donovan, Bransford, & Pellegrino, 1999). Another strategy is increasing the authenticity of learning experiences by linking practices to real-life experiences and honoring students’ cultural practices. This strategy ensures all learners feel safe in the environment and enhance motivation for disengaged learners (Bransford, Vye, & Bateman, 2002; Protheroe, 2007). The last strategy utilized by the program is for teachers to assist learners in organizing new information when they offer prescriptive, diagnostic teaching (Leko, Brownell, Sindelar, & Murphy, 2012). This strategy is used to narrow gaps in knowledge and teaches methods of knowledge organization, such as concept maps and other visual aids (Bridglall, 2001; Protheroe, 2007).

Current Practice in Baylor’s Special Education Program

During the third-year experience in special education, candidates teach mathematics to a small group of three to five students who may have any of the following labels: emotionally disturbed, dyslexia, limited English proficiency, learning disabled, or at-risk for subsequent failure. By this point in the special education program, candidates have completed courses in exceptionalities and child development. These provide the candidates with a broad range of theories on learning and development, but the school experiences prior to the junior year have typically focused on developing students who may struggle in a specific content area.

When candidates enter the special education program, the common belief is that a label determines the needs of student but during this experience, candidates are taught to view students as individuals. Assessment allows candidates to see the individual strengths and needs of the students in the groups and this data is used to

create group lessons that address the individual and the group simultaneously. The students selected to be taught by the candidates are students who are not making progress in the regular education mathematics classroom and have failed to achieve a satisfactory grade on the past standardized tests. The students in question have been participated in remedial programs in the school, but they often require higher levels of support, such as may be provided by diagnostic teaching.

Candidates design an instructional strategy to match the knowledge and skills of each student in the intervention. Small groups of four to six students are formed based on instructional needs and the candidate must plan a sequence of instruction for the group and for each individual student. This requires candidates to interpret and use diagnostic test scores to study individual differences within the group. Instruction is designed to promote skill and concept development while encouraging transfer from the intervention setting to the general education classroom.

To help students transfer learning to new environments, candidates use learner-centered practices. They connect each lesson to the students' prior experiences by using techniques such as activating the knowledge gained from previous lessons and asking students about life experiences that may use the knowledge. Throughout the lessons, candidates require students to respond to direct questions about the content. The calls for response require students to verbalize their thinking, which according to Vygotsky, will further their understanding of the material. Candidates respond to the students' answers by affirming correct answers, discussing incomplete or incorrect answers, and asking follow-up questions to clarify hesitant answers. During this process, candidates track progress on each student and refine the instructional strategy to maximize student learning.

Current Practice in Baylor's Gifted and Talented Education Program

During the sophomore year students in the gifted and talented program take a learning and developmental course devoted to learning models as well as an introductory course on the gifted child. These courses give the candidates the foundational knowledge about typical and atypical development, including characteristics of the gifted learner in order for them to identify individual differences for differentiation practices.

While the candidate works one-on-one with their student in the sophomore year, they must help develop questions for their student's specific research interests and also use a student record to track what their student is learning. At the end of the semester in the one-on-one session with the student, the candidate evaluates the student's performance with specifically tailored feedback. By starting this learner-centered approach at the beginning of the candidate's time with students, it builds upon itself when the candidate's group of students grows.

In the junior year the candidate works with small groups of students and differentiates his or her practice based upon the differences in content, rate, preference, and environment of the students. The candidate continues to adapt questions and

now also divides students into smaller groups based upon student differences. Throughout the semester, the candidate communicates the progress of the students with the candidate's instructor to change instruction accordingly. The differentiation expands during the senior year teaching experiences to include differences in social and emotional needs of individual students and the candidate must use acceleration, curricular compaction, and tiered assignments to further meet student demands. Candidates must also write a case study and design an Individualized Education Program (IEP) to meet the cognitive and affective needs of a twice-exceptional student. By the end of their program, candidates will be able to differentiate using the methodologies of questioning, depth and complexity, grouping, compacting, varied activities, assessments, homework assignments, independent research, tiered assignments, creative problem solving, simulation, acceleration systems, and assessments from concepts. These settings provide the candidate with opportunities to use assessment and instruction to help each student in all areas.

Principle 2:

*Formative Assessment Provides Information about the Student
and Assists in Designing and Adapting Instruction.*

Research Evidence and Theoretical Support

To teach in heterogeneous classrooms, teachers need to know how to identify differences among students. Formative assessment, which is conducted before and during teaching, can help teachers identify the needs of both a group and of individuals, tailoring instruction to meet these needs (Kingston & Nash, 2011, p. 28). In schools today, formative assessment may not be incorporated for a variety of reasons. As Sabel, Forbes, and Zangori (2015) found in their study on science teachers, teachers may not understand the formative assessment process or have sufficient knowledge to put it into their practice. Even for teachers that understand the purpose, they have many obstacles inside and outside of the classroom affecting implementation, including but certainly not limited to behavioral issues; a wide range of student abilities, interests, and motivation; home issues, such as absent or non-supportive parents; district policies; and state standardized testing (McMillan, 2003). For those teachers who do use formative assessment, the dissonance between teacher beliefs, district and government policies, and school practices can impact the effectiveness of this practice (Sach, 2015). This is where schools of education can help.

Formative assessment comes in many varieties and has several definitions (Ainsworth & Viegut, 2015). In traditional instruction, the assessment model includes a pre-assessment, multiple lessons over different aspects of the topic area, and then a post-test which results in a final grade for the unit or period of time (nine weeks or semester reports). However, current formative assessment should include more than that. Black and Wiliam (2009, pp. 16–17) found that effective

assessment involves teachers adjusting how they teach and what they teach based on formative assessment. Additionally, teachers provide quality feedback to help students to improve, with students participating in this process through their own self-assessment. Teachers must enable student agency over their own knowledge attainment for best practice (Heritage, 2013). Furthermore, all assessments must be reliable and valid (Stanley & Alig, 2014).

In one modern design, the collaborative data analysis model (Ainsworth & Viegut, 2015), the formative assessment takes place multiple times with an assortment of strategies throughout the learning cycle. This model utilizes a team in order to continually adjust to what the students know. The team typically consists of either vertical or horizontal teacher groups, possibly including an instructional or curricular coach. This model begins with a pre-assessment, consisting of a team meeting to select the assessment tool, analyze data, set academic goals, and select strategies for this particular area and these particular students. From here, the teachers go to their classrooms and teach. Unlike the traditional model, this teaching not only consists of instruction, but also monitoring and adjusting during the instruction (Creghan & Creghan, 2013). Teachers check for understanding, give feedback, and meet the pacing needs of the students, whether that be to cover difficult material again or to provide further enrichment if the students comprehend the work (Hollingsworth & Ybarra, 2009). In the middle of the unit, the instructional team checks in to address any concerns or adjustments made. During this time students also reflect upon their progress. This may be a short journal or writing assignment, just to make sure they stay accountable to and motivated in their learning. After the team meeting and consideration of student reflections, teachers continue teaching, monitoring, and adjusting just as before. Once the teacher completes instruction, it is finally time for the post-assessment. All of the previous aspects – data analysis, goal progress, student reflection – again takes place. A cumulative view of all components is vital to determining effectiveness.

Although many assessments stop at the post-assessment, the collaborative data analysis model finishes with what is called the “bridge.” During the bridge, as one would assume, the students and teachers make their way from one unit to another. This bridge time allows students who did not fully grasp the material from the last unit to “catch up,” while those students who met their goals can further refine or enhance their newly-acquired skills. Schools of education must be current on formative assessment models in order to teach their pre-service teachers more than the pre-test, teach, post-test model of the past.

Furthermore, pre-service curriculum must incorporate important practices. On a foundational level, instructors should frame formative assessment as an on-going activity in the classroom, teaching these educators how to properly analyze the data from their assessments rather than simply collect student information (McMillan, 2003; Bennett & Cunningham, 2009). For courses that teach methodologies such as problem or project-based learning, explicit instruction on formative assessment strategies helps maximize student achievement (Trauth-Nare & Buck, 2011). This

instruction should also include contextualized scenarios, case-based practice, and extensive field experiences with instructor feedback (Buck, Trauth-Nare, & Kaftan, 2010). Another common method in the classroom, inquiry-based teaching, utilizes formative assessment in its practice and teachers need to use this to adjust instruction (Otero, 2006). In schools of education, pre-service teachers need weekly practice and reflection in order to develop their questioning techniques and skills with students (Weiland, Hudson, & Amador, 2014). Considering schools of education promote the use of individualized instruction for students, this should also be done with the teachers to meet the spectrum of needs, subject areas, and interests (McMillan, 2003).

Informing teachers about the ways in which they can improve their formative assessment practices once they leave the safe haven of their certification program is important. In the classroom, student involvement becomes a valuable tool, increasing motivation and providing authentic feedback regarding content (ibid.). Student input on their goals, progress, and thinking can help teachers design and students reflect. After unit completion, teachers can ask trusted students, or provide a means for anonymous comments. Teachers must be self-aware of their decision implications, misconceptions (such as the idea that students “either get it or don’t”), and their biases, including the ways in which they may be assessing student effort and motivation (ibid.; Otero, 2006). Awareness will also be crucial in dealing with the differences in practice and beliefs between the teacher and school (ibid.). Outside of the classroom, teachers need sources regarding their individual subject areas (Falk, 2012) and a teacher community to gain perspectives on planning and practice, troubleshoot, and find camaraderie among peers (Bjørnsrud & Engh, 2012; Sato, Wei, & Darling-Hammond, 2008). Professional training such as National Board Certification can provide an avenue for these types of support (Wylie & Lyon, 2015). Leading teachers to known resources and emphasizing the need for them to seek out their own will help not only with formative assessment, but with all classroom needs.

Current Practice in Baylor’s Special Education Program

In the second year of the special education program, candidates co-enroll in a literacy class and an assessment class. The combination of these two courses serve as a laboratory for understanding, applying, and evaluating formative assessment. Before teaching and assessing students, candidates spend four weeks learning about formative and summative assessment. This instruction is designed to equip candidates for an initial pre-assessment of a student who struggles with literacy. After this initial learning period, candidates conduct a pre-assessment and return to the university for instruction in evaluation. During this component, candidates use formative assessment information to construct a three-week learning sequence based on individual student and group needs. At this time, candidates are also instructed in using continuous formative assessment during instructional delivery as a method of data collection on student learning and as a tool for adjusting content and instructional delivery methods during a lesson. Candidates then return to the field to teach a six-

week literacy intervention that integrates the five components of literacy, phonemic awareness, phonics, fluency, comprehension, and vocabulary, with the application and evaluation of formative assessment. As a final product, candidates write a case-study of a student which translates the assessment data and instruction into layman terms.

Current Practice in Baylor's Gifted and Talented Education Program

The candidate's knowledge of the data collection process begins early, in the one-on-one, small-group, large-group, and whole-class environments. In the sophomore year of the candidate's program, they use a product checklist along with state standards to begin assessment and learn how to evaluate using a creative problem-solving matrix. During the junior year, the candidate implements both pre- and post-assessments with their groups in order to frame instruction. They also learn and design multiple forms of assessment, such as extended and limited response, checklists, rubrics, and exit tickets. The candidate must keep a record of student performance in both qualitative and quantitative measures. The candidates learn the difference between assessment and grades, as well as the proper way to use grades within the classroom. Benchmark test scores from the district must be used to further improve instruction and student achievement. In the senior year, the candidates must use assessments as only one part of their student case study to evaluate the needs of a twice-exceptional student.

Principle 3:

A Deep Foundation of Factual Knowledge Must Be Organized Conceptually to Facilitate Its Retrieval, Application, and Transfer.

Research Evidence and Theoretical Support

The organization of curriculum requires an understanding of declarative, procedural, and strategic knowledge in the field (Alexander & Judy, 1988, pp. 375–377). The revised version of Bloom's Taxonomy suggests declarative knowledge includes knowledge of facts and terminology, such as the vocabulary used in a specific discipline (Krathwohl, 2002, pp. 213–214). Procedural knowledge consists of information about how to do things and how to use skills or methods to reach a goal or outcome (Dole & Sinatra, 1998, p. 109). Strategic knowledge, in Bloom's Revised Taxonomy, is a part of metacognitive knowledge and refers to awareness of one's thinking, monitoring one's thinking and behaviors, and knowledge about when and where to apply specific strategies (Krathwohl, 2002, pp. 215–217).

Both psychology and education have a deep interest in how knowledge is organized, retrieved, and generalized to other settings, a concept known as "transfer" (Dole & Sinatra, 1998, pp. 113–114). Transfer requires organized knowledge (Baroody, Feil, & Johnson, 2007, p. 117). According to Piaget, organized knowledge is easier to process and integrate into existing schemata (Billet, 2001). Schemata represent the

building blocks of all knowledge and these can be integrated into complex webs of knowledge if an organizational structure is present. Incoming information is filtered through a learner's schemata, which serves to activate an existing schema (Blissett, Cavalcanti, & Sibbald, 2012, p. 816). The activated, existing schemata serve as a filter that allows sorting of information and predication or evaluation of outcomes.

Piaget proposed intelligence develops through assimilation and accommodation, or using an existing schema to interpret and evaluate the world (Piaget, 1964, pp. 236–246). Assimilation is the process of incorporating new experiences into existing schemata, while accommodation requires modifying an existing schema because present experience negate an existing understanding. A large complex web of knowledge about a particular subject allows for assimilation to occur more frequently and is referred to as equilibrium (Blissett et al., 2012). Existing schemata are complex enough to encompass new incoming information from experiences, but if these experiences do not conform to a learner's previous understanding, the learner will enter disequilibrium. In this state, the web of knowledge is not complex enough to accommodate new information and existing schemata must be modified (Billet, 2001).

Current Practice in Baylor's Special Education Program

The special education program teaches candidates to organize knowledge for effective and efficient learning. The students participated in the field-based practicums throughout the program have skill and concept deficits that warrant intervention provided by specialists. As candidates move through the program, they learn additional methods for narrowing skill and concept deficits.

During the junior year, candidates are expected to design a nine-week mathematics intervention for a group of middle school students. The students in the intervention have failed to make progress in the Response to Intervention framework used by the school and require more intensive intervention prior to referral to a special education program or prior to changing the placement for a student with special needs. Candidates create and deliver the more intensive intervention and, by doing this, learn to organize knowledge for efficient learning.

Students involved in intensive interventions require efficient organization of knowledge because the goal is to increase the rate of learning such that students in the intervention are able to function similarly to their peers in the general education classroom. Curriculum design leading to a rate of learning change requires the following: assessment, progress monitoring, sequencing instruction, and setting measurable goals. At this point in the program, candidates have used assessment and progress monitoring in literacy but they have not experienced either process in mathematics. Instruction to achieve such progress occurs during the first four weeks of the semester with candidates practicing these processes in the schools starting during the fifth week of the semester. Sequencing instruction and setting goals are taught throughout the entire semester.

Candidates pre-assess a group of middle school students in the fifth week of the first semester of the junior year and use this data to connect standards, such as the Texas Essential Knowledge and Skills, to sequencing content and setting goals. Pre-assessments include a diagnostic mathematics assessment, state standardized assessment results from the previous year, universal screening results from the beginning of the current year, and student work samples from the general education mathematics classroom. Candidates use multiple sources of data to determine a sequence of skills and concepts that will provide the greatest number of usable skills in the least amount of time. The sequence is referred to as the instructional strategy because it represents a roadmap for helping this student reach the same level of performance found in the general education classroom at the end of the intervention. Several knowledge organization guidelines are used to determine the sequence and these include: task analysis to identify pre-skills of a strategy or concept, teaching preskills to mastery before teaching the concept or strategy, teaching easier skills before more difficult ones, and separating information that may be easily confused (Stein, Kinder, Silbert, & Carnine, 2006).

This instructional strategy represents a map to reach the goal of the intervention, but the utility and efficiency of the strategy must be constantly evaluated. Candidates evaluate the strategy using weekly progress monitoring of student performance. Since the instruction in the intervention is to mastery, data from the curriculum-based assessment used for progress monitoring should indicate progress toward the goal, and if progress is not indicated, the candidate must determine why the student is not progressing as planned. This involves multiple steps, but it ultimately leads candidates to change either the organization of knowledge in the instructional strategy or the organization of knowledge during instructional delivery. As the organization in both areas follows the same guidelines, this teaches the candidates to use task analysis and error analysis as methods of chunking knowledge for learners. For students with special needs, chunking knowledge into developmentally appropriate, sequenced units allows the most efficient and effective learning.

Current Practice in Baylor's Gifted and Talented Education Program

In the beginning courses of the program, the candidates learn about the major educational theories including behaviorism, cognitivism, and social learning. The candidates build their knowledge around classical and modern concepts and in their sophomore year, the candidates complete a synthesis paper of all theories in conjunction with their personal beliefs and experiences. Starting at these conceptual levels allows candidates to plug in and connect later ideas to each other before expecting them to teach students to connect the ideas.

For their instructional practice, candidates learn to ask questions and create visual representations with their small and large groups. The candidates learn both concept teaching and learning as a prerequisite for teaching their students how to think critically and design their assessments more effectively. By their junior year,

candidates in the gifted and talented program use types of knowledge to develop their lesson plan and design their sequence of instruction. Candidates must utilize a spectrum of the knowledge taxonomy when assessing student performance.

All candidates also complete courses in crucial domains. Candidates must take classes on teaching literacy, social studies, mathematics, science, art, drama, physical education, and music. These courses educate candidates not only on the topics, but how the various concepts connect and how they will teach these ideas to their future students. Throughout the program, candidates must also take course content exams and state licensure exams. At the end of the program, the students must participate in a final debate and demonstrate their knowledge of the field of gifted education. These methods help assess that the candidates have gained the full knowledge required in each subject and that the candidate is prepared for his or her work in this particular educational setting.

*Principle 4:
Strategies Are Important in Learning to Solve Problems and
in Becoming an Independent, Effective Teacher.*

Research Evidence and Theoretical Support

The most useful problem-solving skills are flexible and adaptive. For experts, who generally have a large and complex understanding of a domain, solutions can be readily generalized and problem-solving skills may be applied in novel situations (Hatano & Oura, 2003). Expert and novice problem solvers organize their knowledge differently (Davidson & Sternberg, 2003). Expert problem solving within a domain may seem effortless to viewers because much of the pattern-matching and awareness of salient details missed by novice problem-solvers occurs at a subconscious level (Fadde, 2009). The expert problem solver relies on planning, anticipation, and reasoning to determine the best solution. Expert and novice problem solvers organize their knowledge differently. Mayer (1992) described the novice problem solver as an individual who has strategies to solve the problem, whereas the expert breaks the problem into parts to determine the correct solution.

Although extensive research has been completed to deliberate the differences between the knowledge base for novices and experts, as well as the organization of problem solving, research also shows that experts monitor the strategies utilized to solve the problem more carefully than novices (Voss, Greene, Post, & Penner, 1983; Newell & Simon, 1972). To become teachers who practice effortless problem solving, individuals need an extensive background in their content area and extensive practice solving problems in the classroom with feedback from expert instructors on salient information to consider in each situation (Shulman, 1986). For example, teachers-in-training may lack the underlying representations available to expert teachers and as such, may be unaware that a behavior problem is developing in a classroom or may be unaware of their role in changing the developing behavior

problem (Hogan, Rabinowitz, & Craven, 2003; Simon, 1979). Research on expert and novice representations has found novices may adopt expert-like representations if novices receive instruction in recognizing the underlying structure of problems in that field and this instruction may shorten the typical time required to develop expertise (Klein & Hoffman, 1993; Quilici & Mayer, 1996; Zimmerman & Campillo, 2003).

Current Practice in Baylor's Special Education Program

During the junior year, candidates in the special education program conduct a functional behavior assessment and create a behavior intervention plan for a student in the teaching practicum. To begin problem solving for behaviors, the candidate meets with a multidisciplinary team that may include the instructional facilitator, classroom teachers, related service personnel, and administrators. The team helps identify the problem behavior. The candidate uses this information to conduct an extended observation of the student during which data on antecedents to, and consequences given for, the behavior are recorded. The length of the preliminary data gathering depends on the severity and the specificity of the behavior. This is the first step in determining the function of the behavior.

After initial data have been collected, the candidate meets with university faculty to create an observable definition of the behavior and discuss possible functions of the behavior. Baseline data on frequency and duration of the behavior can be collected once the behavior is defined. Baseline data are collected at different times of the day and in multiple settings. Candidates also interview personnel who interact with the student to collect information on with whom the behavior occurs, where the behavior occurs, and other information that may help with the design of an intervention. From the data collected in interviews and during baseline, candidates formulate a hypothesis about the function of the behavior and design an intervention to reduce the occurrence of the behavior. The intervention must include evidence-based practices and objectives that can be used to monitor the student's progress.

Current Practice in Baylor's Gifted and Talented Education Program

For candidates in the gifted and talented education program, faculty members begin teaching strategies in the first course. These include items such as managing time, increasing positive interactions, using authentic methods of discipline, varying classroom group activities, adapting questions, and following the praise versus correction ratio of 4:1. The candidate's experience includes working with a single student during their sophomore year to the instruction of an entire class during their senior year. This experience allows candidates to hone their strategy use gradually from simple to complex situations. Along with the strategies, candidates build upon their domain knowledge and apply research skills to increase teacher effectiveness. Candidates must also reflect on each lesson plan with an expert, a Baylor University

faculty member. The candidates gain independence and transition from a novice to a more qualified teacher through a gradual release of responsibility. The program scaffolds effective teaching (including problem solving) so that the candidates will be able to continue independently once they graduate.

*Principle 5:
Learning Is Developmental and Influenced
by the Context in Which It Takes Place.*

Research Evidence and Theoretical Support

The conceptual framework of the teacher education program at Baylor University is designed to be developmental because developing expert teaching skills requires extensive practice (Borko & Putnam, 1996). Research supports an average of ten years or 10,000 hours of practice to become an expert in a field. This practice must be conducted in the social setting where the expertise will be used, such as writing lessons and teaching them in a school with children as opposed to writing lesson that are then acted out in a college course at the university (Billet, 2001). In addition, the development of complex skills requires intentional planning and a positive environment for practice (Bambrick-Santoyo, 2013; Maggio, Cate, Irby, & O'Brien, 2015).

Extended practicums in classroom working with diverse groups of students appears to be the key to the development of expertise in teaching unique populations, such as with disabilities and students with gifts and talents (Sharma, Loreman, & Forlin, 2012). In addition, the needs of students in the practicums should increase as a candidate becomes more advanced in teaching skills. Vygotsky (1978) suggested designing instruction that is within the zone of proximal development would encourage a learner's development. For teacher education, the zone of proximal development may be interpreted as the distance between mastered situations and situations where the candidates require the assistance of a more advanced teacher in order to be successful. Teacher education programs should present practicums with increasing complexity to encourage candidates to develop the range of skills needed for teaching in exceptionalities (Warford, 2011; Leko et al., 2012). As metacognition related to teaching develops, candidates should be able to design and implement instruction with increasingly diverse populations (Pintrich, 2002).

Current Practice in Baylor's Special Education Program

Candidates wishing to specialize in teaching children with disabilities teach students with a broad spectrum of needs during the teacher education program. The first placement in the freshman year is in a general education classroom as a tutor. Candidates supplement classroom learning and provide support for students in one of four content areas: English language arts, mathematics, science, or social studies.

In the first semester of the sophomore year, candidates teach decoding skills for multisyllabic words to a late elementary age student using a scripted lesson format. The student may or may not have a diagnosed disability, but must be identified as a struggling reader by the school. The second semester of the sophomore year also has a placement in literacy, but the focus of this placement is instruction for beginning readers. Candidates must assess two kindergarten to second grade students who struggle with reading and use the assessment results to construct a six-week reading intervention. Candidates teach in pairs, which means all assessing, lesson planning, and instructional delivery will be shared. In the junior year, candidates use the sophomore experience to build a nine-week intervention in middle school mathematics for a group of four to six students. The students in the intervention are selected by evidence of past academic failure and may have complex diagnoses, such as emotionally disturbed and learning disabled. The second semester of the junior year occurs in a high school life skills setting where candidates teach one or two students with moderate to severe needs. During this placement, candidates must collaborate with therapists, other teachers, and paraprofessionals to best serve the needs of the included students.

Current Practice in Baylor's Gifted and Talented Education Program

Candidates learn about the typical development of children in their first courses in the program. This includes major theories of social, moral, physical, cognitive, and emotional development, among other topics. Starting in the second semester of the sophomore year, candidates focus on characteristics of gifted students. Candidates must apply their knowledge of what impacts development by examining examples within the courses and writing case studies about students they teach. In the junior and senior years, when the candidates begins to teach larger groups, they must collect data on classroom demographics and complete a background study to examine individual differences. These items impact how the candidates differentiate instruction for students of all ability levels. The candidates also take this information into considering when collaborating with students, parents, teachers, and other important figures in the student's life that interact with the child in a variety of contexts.

*Principle 6:
Collaboration Is Important When Creating
a Diverse Learning Community.*

Research Evidence and Theoretical Support

Collaboration is an essential part of today's schools and forms the basis of many current initiatives for educational reform (DuFour, DuFour, & Eaker, 2008). By definition, collaboration is voluntary, involves direct communication, occurs between

individuals with equal responsibility, and is goal-directed (Friend & Cook, 2013). This form of cooperation is supported by theories in organizational structure from the corporate sector and has become an important area of research in many disciplines, such as medicine, nursing, education, and social reform (Wyles, 2007; Peck & Scarpati, 2004; Waldron & McLesky, 2010). Additionally, the National Board for Professional Teaching Standards and the Interstate New Teacher Assessment and Support Consortium both recommend instruction in collaboration for pre-service teachers. This type of interaction is a part of positive school culture (CCSSO, 2011; NBPTS, 2001).

Social network theorists claim that individuals are interconnected and embedded within social structures (Degenne & Forsé, 1999, p. 13). Teachers are embedded within the social structure of the school, which may or may not include many of the defining factors of collaboration, such as shared responsibility for decision making, trust among teachers and administrators, and collective efficacy (Goddard, Goddard, & Tschannen-Moran, 2007). Schools with a social structure that supports collaboration may indirectly impact student achievement in ways that would not be possible without collaboration. Some of the lesser acknowledged benefits of a supportive social structure include collective responsibility for student achievement and teacher professional development (Moolenaar, Daly, & Slegers, 2010). Schools with social structures supporting collaboration create safe places for teachers to experiment with novel instructional strategies and innovative practices (Bryk & Schneider, 2002).

Teacher educators must prepare pre-service teachers for participation in collaboration. With the passage of Individuals with Disabilities Education Act of 2004, the federal government created legislation supporting the inclusion of individuals with disabilities in the general education classroom. Special education teachers serving these students must collaborate with the general education teachers in order to provide the depth and breadth of services mandated by the federal government (Friend & Cook, 2013, pp. 15–18). In addition the social structure of the schools must adapt to support a new model of service.

To prepare teachers for this environment, teacher education should embed practice in interpersonal problem solving, teaming, co-teaching, handling difficult interactions, and communicating in existing clinical experiences. Interpersonal communication consists of a set of skills that help individuals listen effectively, construct appropriate responses, and control nonverbal communication that may detract from the message (Harris & Sherblom, 2011, pp. 77–79). Pre-service teachers will also need instruction in handling difficult situation because such situations offer the greatest opportunity to exercise collaboration skills. New teachers lacking such training may find these situations to be a major contributor to job stress (Martinez, 2004). The number of students with disabilities who are served in the general education classroom has increased dramatically in the United States since 2004. Such students are currently served through a variety of models that includes teacher teams and co-teaching (Loiacono & Valenti, 2010, pp. 24–25).

Current Practice in Baylor's Special Education Program

In each practicum semester, candidates in this special education program are supervised and given feedback by a variety of specialists. During the first semester of the junior year, candidates complete a co-teaching assignment in a general education science or social studies classroom at a middle school. Classrooms for this experience are selected because the classroom teacher has superior skills in differentiating instruction and classroom management. Students with disabilities are included in these classrooms, and the classroom teacher has previously served as a mentor. The experience is designed to help candidates develop skills necessary to serve as inclusion specialists in a general education content classroom.

Prior to completing a co-teaching experience in the classroom, candidates receive instruction about basic models of co-teaching and differentiating instruction based on content, process, and product. This knowledge is used to create a series of three lessons to be taught on three consecutive days. Candidates teach the lessons in teams of two or three, receiving daily verbal and written feedback from the classroom teacher and the supervising professor. The candidates write daily reflections incorporating the feedback received as well as a final reflection as a means of consolidating what they have learned from the entire experience. This final reflection requires candidates to discuss the changes in their classroom problem-solving behaviors during the experience.

Current Practice in Baylor's Gifted and Talented Education Program

Collaboration occurs both inside and outside of the Baylor classroom for candidates. In the partner schools, candidates work with parents, teachers, and administration during the sophomore year. While working with individual students on their research projects, the candidates communicate with these groups. This helps all parties begin on the same page. At the end of the individual research study, the candidate facilitates the research showcase, elaborating on the progress that the student has made throughout the semester in the research process. Further in the program, the candidate presents benchmarks when working with the gifted and talented team, additionally communicating assessment information to the student, parent, and the candidate's mentor teacher. All work together to create the best environment and outcomes for the student.

The mentor teachers and the candidates also jointly attend research conferences. During the senior year, the mentor teacher selects one conference for candidates to attend and the candidate also picks a different conference. In this way, the mentor teacher helps guide the candidate to proper avenues for further instructional guidance that has a basis in valid research. This also allows for independence and interest for the candidate, thus making the continued learning process seem more appealing. At the research conferences candidates are able to share the strengths and challenges of each course in the program with their peers. From one-on-one struggles to whole-

class success stories, the candidates work through these issues with their cohort. The cohort moves through the program together and therefore establishes a sense of trust and community. This creates an opportunity for the teachers to communicate honestly and freely. During these strategy sessions, the Baylor faculty member remains present and engaged in order to ensure that the candidate continues to teach according to best practices. The collaboration then exists in all settings for the teacher candidate.

*Principle 7:
Reflection Deepens the Understanding of
Effective Instructional Practices.*

Research Evidence and Theoretical Support

Dewey's concept of reflection as a special type of problem solving is the most prevalent form of reflection in teacher education. His framework is often attributed as the source of this practice (Howard, 2003, p. 197; Dewey, 1910). Subsequent interpretation of Dewey's framework leads to the following four specific issues that are relevant to any teacher education program practicing reflection:

- Is reflection thought or action?
- Should reflection be immediate or should it occur over an extended period of time?
- Should reflection be problem centered or less focused?
- To be considered reflection, does the practitioner need to consider the socio-historical context of the actions? (Schön, 1983, p. 69; 1987; Gore & Zeichner, 1991, pp. 120–121).

While there is little consensus on how to reconcile the issues listed above, the use of reflection to help pre-service teachers form a professional teaching identity is undisputed. Professional identities are developed over time through systematic reflection and interpretation of personal experiences in the classroom (Sutherland, Howard, & Markauskaite, 2010).

Reflection may occur on several levels, but the ultimate goal of reflection for teachers is transformation of beliefs and values (Lee, 2005). Complex experiences, such as teaching in a classroom, require reflection if these experiences are to impact a teacher's beliefs and values in ways that are transformative (Reiman, 1999), but teachers may need guidance and structure to produce reflections that lead to maximum growth. Scaffolding new teachers' reflections requires measuring their current level of reflection as well as using this level to generate deeper reflections. These reflections encourage perspective taking, inquiry, and flexible thinking about classroom and school-wide situations (Sprinthall & Thies-Sprinthall, 1983). Researchers have established different categories of reflections, such as technical and critical reflection (van Manen, 1977, pp. 210–213), but regardless of the classification used, the goal is to produce productive reflections that integrate theory with practice (Davis, 2006).

Methods for scaffolding the depth and complexity of reflections include using action research (Ross, 1990, p. 98), on-line discussion spaces (Harrington & Hathaway, 1994, p. 552), or targeted written reflections (McMahon, 1997, pp. 209–211). Each of these methods situates field-based learning within a Vygotskian framework that blends scholarly language with personal experience in the classroom, thus granting pre-service teachers the opportunity to develop complex teaching and learning concepts (Warford, 2011, p. 1553).

Current Practice in Baylor's Special Education Program

Reflection is used throughout Baylor's program for preparing special education teachers. As candidates progress through the program, they are assessed on their ability to reflect on field-based experiences and link these experiences to theory presented at the university. One method used to develop skills in reflection is cognitive coaching. Beginning in the sophomore year, special education candidates participate in coaching during teaching practicums. Candidates teach in pairs, which provides an opportunity for observation and feedback concerning each teaching session of the practicum.

Candidates are trained in the practice of cognitive coaching prior to entering the practicum setting. Since the candidates are in pairs, each only teaches one half of the instructional period and uses the other half to record observations of the partner's teaching on a coaching form. The form includes space for each section of the lesson, such as setting expectations, connecting to prior knowledge, instructional delivery, and corrections or differentiation used. Coaches record only facts on the coaching form and are instructed in using non-evaluative language when recording data. In addition, partners may decide to focus observation-specific behaviors or practices, such as using specific praise or signaling for a response from the students. After the teaching session, the partners discuss the notes from the instructional period and encourage the development of evaluative and reflective practices by each partner. Partners use leading questions to help each other consider why a method did or did not work and how to improve practice in future teaching sessions.

Current Practice in Baylor's Gifted and Talented Education Program

In each course, the candidate is expected to analyze their instructional strategies in reference to the progress of their students. This happens in a variety of forms. Informally, the candidates discuss the effectiveness and beliefs about common practices with the instructor and their cohort during their classes on campus. They thoughtfully reflect on personal experiences in accordance with current research in this safe classroom atmosphere. Formally, the students must also submit weekly reflections. These reflections only go to the instructor so the instructor can give individualized feedback to the candidate. This allows all candidates the time to reflect and also discuss any aspects that they feel should not be shared in the whole group setting. Reflections

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revolve around various topics, such as student achievement and experiences within the school, such as special education meetings for particular students. The candidates must also reflect about their teaching practice. The students in the gifted and talented education program must evaluate the effectiveness of individual lesson plans in regard to specific student needs: those of typical performance, those with a disability, and those who qualify as having gifts or talents. This reinforces the need for the variety of differentiation practices the candidate has already learned. Candidates also video themselves teaching and receive feedback after self-reflecting on aspects such as professionalism or questioning techniques. Each course having built upon the skills of the candidates, by the end of the program, the candidates will have reflected upon the spectrum of the teaching experience in addition to having received constructive criticism in order to continually improve upon their practice.

CONCLUSIONS

The teacher education program in exceptionalities at Baylor University restructured in 2001 to create additional clinical practice for teacher education candidates. The National Council for the Accreditation of Teacher Education added clinical practice as an important element of teacher education in 2002, and Baylor University designed the Learner-Centered Professional Education Program to be reflective of these new recommendations. Seven research-based principles of strong education programs formed the basis on the Learner-Centered Professional Education Program. These principles include:

- Classrooms and schools must be learner centered, thus creating a positive environment for learning.
- Formative assessment provides information about the student and assists in designing and adapting instruction.
- A deep foundation of factual knowledge must be organized conceptually to facilitate its retrieval, application, and transfer.
- Strategies are important in learning to solve problems and in becoming an independent, effective teacher.
- Learning is developmental and influenced by the context in which it takes place.
- Collaboration is important in creating a diverse learning community.
- Reflection deepens the understanding of effective instructional practices.

From these seven principles, the teacher education faculty created eighteen benchmarks, or measurable behaviors that should be demonstrated by all teacher education candidates. These benchmarks are used to measure the effectiveness of content, courses, and field-based experiences at producing proficient teachers. Candidates in the programs for exceptionalities require a diverse set of experience to develop proficiency serving learners of varied backgrounds, abilities, and ages. The seven principles and the eighteen benchmarks serve as a unifying theme that creates a coherent program from this set of diverse experiences.

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