Developmental Standards Paper:

Application of Development using Research and Theory

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      As a developing professional, I plan to establish a career as a special education teacher in a classroom requiring severe interventions. A special education, severe interventions, professional educates children with severe cognitive, physical, emotional, and behavioral disabilities. While the degree I am seeking will promote licensing in all grades, I aspire to work at the elementary level. Special education professionals, specifically in severe need classrooms, will have students in several grade levels. This fact brings me to not focus on a specific grade level. Because I intend to teach in kindergarten through 5th grade, I will be focusing my developmental standards research on middle childhood development, which consists of children ages six to eleven. There are four crucial domains in development: physical, cognitive, emotional, and social. Each one plays a crucial role in middle childhood development, and there are areas in each that factor into the needs of students in special education.

      Because many disabilities derive from genetic complications, I will be focusing on the genetic foundations of development when concerning the physical domain. Attention is a crucial factor in education, and children with disabilities often struggle with this. This cognitive area will be discussed in large. Students with disabilities may have an impairment in emotional development, so I will focus on the emotional development and emotional self-regulation of children in middle childhood. Peer acceptance is an important factor in the social development of all children, but it can affect children with disabilities largely when considering emotional disabilities. All of these areas within the crucial domains affect the development and education of children with disabilities, and as a special education professional, I will need to have a strong competence in all of them.

The genetic foundations of development can be a very complex process, but only a simplified version is necessary when relating genetics to education. People contain trillions of cells, and cells have a command center called a nucleus. Inside a nucleus, are chromosomes that collect and communicate genetic information. Chromosomes come in twenty-three matching pairs, except for the final sex chromosomes in males. All chromosomes consist of a chemical called deoxyribonucleic acid, or DNA. Sections of DNA inside of chromosomes are called genes (Berk, 2012, p. 52). Genes, DNA, and chromosomes are what make a person human and unique. In chromosome pairs, one member is inherited from the father and one is from the mother. It is the pairing of these two members that determines an individuals characteristics. An issue in this pairing can also cause an individual to have a disability.

Inherited genes passed from parent to child can result in certain disabilities and diseases. A parent may unknowingly pass along a gene that carries the traits for a genetic disease. These diseases can occur if just one parent carries the genetic information for the disease, or if both parents carry the information for the disease. Whether or not the child develops the disease varies depending on if the genes are dominant or recessive (Berk, 2012, p.56). If a child receives a dominant gene that carries a disease there is a fifty percent chance the child will develop the disease, but if a recessive gene is in place, there is only a twenty-five percent chance (National Human Genome Research Institute , 2012). Sickle cell anemia, cystic fibrosis, and Huntington disease, are all examples of genetically inherited diseases (Berk, 2012, p. 58).

In addition to genetic inheritance, chromosomal abnormalities cause many developmental issues in children as well. Chromosomal abnormalities are the result of defects in chromosome pairing. This could be pairs that do not develop properly, break off, or never pair with a chromosome from the opposite sex. Because whole chromosome pairs have more DNA than just

genes, chromosomal abnormalities usually result in far more physical and cognitive impairments (Berk, 2012, p. 60). The most common chromosomal abnormality is Down syndrome. This develops when the twenty-first pair of chromosomes has an extra member, making three sets instead of a pair. Down Syndrome causes cognitive, physical, and emotional delays in children. A few other disorders that result from chromosomal abnormalities are Triple X syndrome, Turner syndrome, and Klinefelter syndrome. All of these disorders are abnormalities occurring in the twenty-third, or sex, chromosome (National Human Genome Research Institute , 2012).

Disabilities that result from genetic issues are very common in special education, and children with these kinds of disabilities tend to have more severe impairments. As an educator of students with genetically caused impairments, it will be crucial that I have a firm understanding of genetic process and how these genetic issues affect development. An educator must be able to accept student differences and understand different ways that students may develop (AGS 1). As stated before, genetic diseases and disorders can cause delays in every domain of development. Forty-seven percent of students, who receive special education services, have an impairment caused by genetic complications (National Human Genome Research Institute , 2012). Students with these complications may develop uniquely to one another. It will be necessary that I understand that learning may vary in physical, cognitive, social, and linguistic development (InTASC 1).

The first Indiana Development Standard requires having knowledge of student developmental variation and being able to design instruction to meet student success (AGS 1.2). With an understanding that genetic impairments cause a large variation in development, I will be able to design my lessons to meet the individual cognitive, physical, and emotional needs of my students (AGS 1.1). Through these lessons, I will be able to promote individualized student

success. All students have their own strengths, and I will be committed to utilizing student strengths to develop their education even further. While genetic impairments are common in the special education classroom, my knowledge of these processes and affects on development will help me to provide the most accurate and affective education to my students. For instance, if I were to have a student with Down syndrome, I would need to consider my daily interactions with the student in correlation with his or her cognitive abilities. Since students with Down syndrome often have cognitive delays, I will need to modify how I approach lessons and what I ask of students with this disability. These students are fully capable of learning and growing just as any other students are, but my understanding of this genetic disability will help me in my teaching approaches.

Middle childhood is a crucial time for cognitive development. Many abilities develop at this age, such as information processing, memory skills, language development, academics, and attention. Attention, specifically sustained attention, begins to develop drastically within ages six to eleven. Throughout middle childhood, attention becomes more intentional, selective, and adjustable (Berk, 2012, p. 443). Children begin to develop the ability to control their attention on a single task for long periods of time, and are more flexible when asked to focus on more than one thing at a time. According to an article written by Darios Getahun, MD, a thoroughly practiced pediatrician, children are expected to be able to focus their attention for three times their age in minutes. For example, a two year old should be able to hold his or her attention for six minutes, and a nine year old should be able to hold his or her attention for twenty seven minutes (Getahun, Jacobsen, Fassett, 2013). While attention begins to develop at an astounding rate for most children, a few children develop learning and attention issues.

According to the same article by Dr. Getahun, about four to twelve percent of children in the United States have an attention disorder (Getahun, Jacobsen, Fassett, 2013). Attention disorder is a condition defined as having trouble with attention, impulsivity, and hyperactivity in some cases (Learning Disabilites Association of America, 2015). The most common attention disorders are attention-deficit disorder (ADD) and attention-deficit hyperactive disorder (ADHD). Children who have ADD often struggle to pay attention, seem forgetful and careless, and sometimes seem withdrawn. Differing slightly, children with ADHD display the same behaviors, but also have trouble with hyperactive behavior such as, fidgeting, talking excessively, not sitting still, and many more (Learning Disabilites Association of America, 2015). Attention issues can clearly cause many issues for children when considering school performance. While attention disorders are not considered a special education eligibility area, many children with ADD/ADHD have a specific learning disability, or fall into another eligibility area (Yell, 2012). According to an article on the Learning Disabilities Associate of America's website, about thirty to fifty percent of children with attention deficit disorders also have a specific learning disability (Learning Disabilites Association of America, 2015). As a future educator of children with learning disabilities, it will be crucial that I understand attention development, and different ways to assist children who struggle with sustained attention.

The learning process occurs in many steps and requires many skills. A firm knowledge of this process and how to use it to promote student success is necessary (AGS 2). Attention is a skill in the learning process. A student's ability to sustain their attention on academic lessons and tasks plays a key role in learning. Students with attention disorders need extra support from an educator in order to facilitate their skills for learning. Enabling student development using skills in the learning process is essential to help a student become prosperous (AGS 2.2). Of the many

skills in the learning process, development in one may affect another. Poor attention abilities may affect other learning skills. Having the understanding that development in one area affects the performance in others helps teachers to provide needed support in the classroom (InTASC 1). Using individual characteristics of students to promote their interest will help to build weaker skills, like attention, and will encourage learning (AGS 2.10). Students with disabilities, whether the impairment is a learning disability with attention difficulties or another eligibility area, strive when an educator has an understanding of their unique needs and ways to promote learning. As an educator, it will be necessary that I understand the learning process and the best ways to help children with learning and attention needs. For example, I may be able to use a very popular attention redirecting strategy. This teaching strategy involves giving students with attention difficulties subtle clues to redirect and center their attention to the task at hand. This could be the teacher raising a certain colored card, raising her hand, or simply tapping the student's desk. All of these strategies signal the student to regain his focus and is subtle enough to not draw the attention of peers. There are many teaching strategies that can be used to assist students with attention disorders, and I strive to find what works best for my students with these learning needs.

Emotional development in middle childhood helps children to cultivate morals, self-regulation, and emotional understanding (Berk, 2012, p. 490). When children are able to understand the emotions of others and regulate their own emotions, they are able to develop better relationships and appropriate reactions in social situations. Emotional understanding in children means they are able to express internal emotions more deeply, and begin to understand what situations cause certain emotions. The knowledge of intensity and consequences of emotions begins to develop in middle childhood as well (Berk, 2012, p. 490). This is the

knowledge that sadness does not always mean crying, and being mad does not always mean yelling or angry. Emotional understanding of ones self and of others helps children to express themselves appropriately.

Emotional self-regulation develops when children engage in social comparison and seek to be socially accepted. Because of the search for social acceptance, children begin to develop a regulation of their emotions. Emotional regulation is their management of their positive or negative emotions into behaviors that are acceptable and feelings that do not damage their self-esteem (Trentacosta, 2009). By the end of middle childhood, children are able to regulate their emotions in two different ways. The first is a problem-centered coping strategy. This is viewing a negative condition as changeable, and then deciding what to do about the issue. However, if this does not work, children will often use a second strategy of coping with their emotions. This is controlling ones negative emotions in an internal and private way (Berk, 2012, p. 491). Self-regulation allows children to exhibit more mature behaviors, and to begin to develop more advanced relationships. Emotional understanding and self-regulation is a normal development in childhood, but children who experience emotional disabilities may not develop these skills.

Emotional disturbance, or disability, is one of the thirteen eligibility areas in special education (Yell, 2012). This is defined as a person's lack of ability in appropriate expression, regulation, and interpretation of emotions (Yell, 2012). Children with emotional disabilities often have behavioral problems that strongly affect their educational performance. These behaviors can range from physically violent outbursts to emotional breakdowns. As a special education teacher, it will be necessary that I have a strong understanding of the emotional development of children, and I must know what emotional abilities to expect at certain ages. Understanding typical emotional development will help me to encourage progress in students with emotional

disturbances. I will be able to plan my instruction with these understandings in mind, and design lessons to meet these student goals (AGS 3). Students with emotional disabilities can be at varying levels of development, so I will need to use varying teaching strategies to meet these levels. The benefits and limitations of these strategies can affect each student differently, so best practices will be necessary when educating students with developmental disabilities (AGS 3.4). An effective teaching strategy that I may be able to use when addressing students with emotional disabilities is the concept of using a "time out" or "break." This is providing a location or time for a break for students who may become emotionally elevated or upset. This helps them to recognize when their emotions are getting the best of them, and helps them to respond appropriately. This is a very common practice, but I will need to keep in mind that all students develop differently. This means that I will need to keep an open mind when developing teaching strategies for students with emotional disabilities.

Providing an education to students with exceptional needs is a practice that is very student centered. Students with emotional disturbances need the same services, so I will need to plan instruction with the understanding of the strengths and needs of each student (AGS 3.8). Approximately one percent of students who receive special education services are found to have an emotional disturbance (School Psychologist Files, 2013). This is a small portion of students, but the students who do have this impairment are in severe need of teachers with quality understanding. Because emotional disturbances affect every area of a student's life, it is necessary that an educator collaborate with other professionals and the parents that work with a student (InTASC 1). An inclusive team is necessary to promote the best emotional development in students, and is something I am committed to creating for my students. Emotional

development in children plays a key factor in all areas of life for children, and the affects of

emotional development in children with disabilities will be ever present in my career.

The social development of children in middle childhood affects many other areas of

development. Children who do well socially often have higher self-esteem and generally do

better academically. An important factor in social development is peer acceptance. Peer

acceptance is described as the likeability of a child by his or her peers or classmates (Berk, 2012,

p. 500). This is how age-mates view a child. There are many factors contributing to peer

acceptance, but social skills generally make the most difference. Whether or not a child is

accepted by his or her peers can define a child's behavior, self-esteem, academic choices, and

outlook on life. Children usually fall into four main categories of peer acceptance. These

categories are popular children (widely liked children), rejected children (not well liked),

controversial children (neither well liked or disliked), and neglected children (excluded children)

(Berk, 2012, p. 500). Popular children generally excel socially and academically, while rejected

and neglected children struggle at one or both of these skills. Peer acceptance can be a challenge

or come naturally to typically developing children, but it can be a completely new obstacle for

children with special needs.

Many developmental disabilities can cause children to lack social skills, or contribute to

behavior that is not considered socially acceptable by peers. Children with intellectual

disabilities and emotional disabilities often do not understand appropriate behaviors in a social

situation. These behaviors can be inappropriate conversations, inability to determine when

conversation is appropriate, inability to converse, play that is not the norm of peers, lack of

understanding of appropriate play, and many more (Trentacosta, 2009). These actions can cause

children with disabilities to be rejected by peers, which contributes to further emotional and

behavioral problems. According to a research study performed by Tanis H. Bryan, Ph.D.,

children with disabilities are two times more likely to be bullied than their nondisabled peers

(Bryan, 2001). Bullying of children with special needs can be adversely damaging because many

students in this population have not developed emotional self-regulatory skills. This prevents

them from coping with negative actions and handling their emotions effectively (School

Psychologist Files, 2013). This lack of peer acceptance can increase developmental delay.

Because social development is crucial, special education is used to develop progress in these

necessary skills.

    Providing an education to students with disabilities comes with many facets. Social

development can be over looked, but is a common impairment in children. It is the responsibility

of an educator to meet all needs of learners, and this includes development in social ability

(InTASC 1). Improving social skills is specific to each student, and it is accomplished

accordingly. Unfortunately, peer acceptance by nondisabled peers is not easily controlled or

altered. However, there are some things that I will be able to do to encourage peer acceptance

within my own classroom.

    Peer acceptance can be promoted in an appropriate environment. A safe and productive

environment is essential in a classroom (AGS 5). My students will know that my classroom is a

safe place to learn and express ones self, and it will not be a place that tolerates any kind of

bullying. This adapts the environment to meet all needs of students, whether their impairment is

physical, emotional, cognitive, or social (AGS 5.3). Promoting peer acceptance in my classroom

will include being accepting of differences. Each student will be unique in his or her own

abilities. This will enable me to use positive guidance to promote learning and positive attitudes

in the environment I strive to create (AGS 5.5). Social development and peer acceptance go hand

in hand when considering students receiving special education services. As an educator, I will need to be adamant about promoting peer acceptance in order to build the social development of my students. When I instruct class activities, I will make it a point to include all individuals in the room, despite any disabilities. This can be seen when students with physical disabilities, possibly students who use a wheelchair, are included in any activity involving movement in the classroom. For example, if I am using the game "Simon Says" to teach parts of the body, I will modify the game to include students who are not able to stand or move their arms. By demonstrating this inclusion myself, I will be setting an example to my students that all peers are accepted in my class, no matter their abilities.

Special education addresses disabilities in all domains of development. Genetics can be the basis of most disabilities. I must have an understanding of genetic processes in order to fully grasp how a disability may affect a student. This physical domain contributes to important factors in cognitive, emotional, and social development as well. Cognitive abilities in students with disabilities can vary greatly, but attention is something that can be a reoccurring challenge in students. Understanding sustained attention in my students will help me to plan instruction to adapt to the individual needs of students. Many things can affect learning processes, but emotional development can influence learning in unexpected ways. Emotional self-regulation of students can determine their ability to behave appropriately in school, and can determine their willingness to learn. While all of these factors are essential, students with disabilities are growing socially as well. Peer acceptance is equally important to student with disabilities. This may prove to be difficult to promote progress in, but the environment that I create in my own classroom can help to mold peer acceptance for my students. The information about these domains will help me to offer a well-rounded education to students. All of these factors are important in the

development of students with disabilities, so it is my responsibility to be well versed in this information.

The first InTASC standard may be the most essential standard in special education. It relays the importance of all areas of development. Addressing these areas is essential in special education, because there are a variety of disabilities that affect each area of development. Implementing appropriately challenging experiences is an important strategy in special education and of InTASC standard one alike. As a professional, it is my personal goal to implement this standard in a way that provides maximum benefit to all students. The Indiana Developmental Standards of Education complement the first InTASC standard. Developmental standards one, two, three, and five describe the essentials of providing an education. Student development and learning processes are something in which I have a firm understanding. However, I seek to improve my knowledge in the third and fifth developmental standards. As I continue my education, I intend to gain the necessary knowledge to meet these standards. Special education requires an understanding of all of these standards, which provides a challenge. However, with my understanding of the discussed developmental domains, it is a challenge I am willing to meet.

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All Grade Standards

Standard 1 (p.4): Student Development and Diversity

Teachers of grades P–12 have a broad and comprehensive understanding of student development and diversity and demonstrate the ability to provide instruction that is responsive to student differences and that promotes development and learning for all students.

Substandard 1.1 (p.4):

major concepts, theories, and processes related to the cognitive, linguistic, social, emotional, physical, and moral development of students in grades P–12, and factors in the home, school, community, and broader environment that influence student development

Substandard 1.2 (p. 4):

knowledge of students' developmental characteristics and developmental variation, and the ability to use this knowledge to inform instructional decision making and promote student success

Standard 2 (p.6): Learning Processes

Teachers of grades P–12 have a broad and comprehensive understanding of learning processes and demonstrate the ability to facilitate student achievement, including:

Substandard 2.2 (p.6):

processes by which students construct meaning and acquire skills, including critical- and creative-thinking skills, and the ability to

facilitate these processes for students with diverse characteristics and

needs

Substandard 2.10 (p.7):

knowledge of how various individual factors (e.g., prior learning and

experiences, interests, talents) and factors in the home, school, and

community influence learning processes, and the ability to use this

knowledge to improve teaching effectiveness and learning outcomes

Standard 3 (p.9): Instructional Planning and Delivery

Teachers of grades P–12 have a broad and comprehensive understanding of

instructional planning and delivery and demonstrate the ability to plan and deliver

standards-based, data-driven differentiated instruction that engages students,

makes effective use of contemporary tools and technologies, and helps all

students achieve learning goals, including:

Substandard 3.4 (p.9):

knowledge of the characteristics, uses, benefits, and limitations of

various instructional approaches appropriate for students at different

developmental levels, and the ability to apply research-based best

practices to meet a variety of instructional needs, make content

comprehensible and relevant to students, and promote students' active

involvement in their learning

Substandard 3.8 (p.9):

the ability to plan and adapt learner-centered instruction that reflects

cultural competency; is responsive to the characteristics, strengths,

experiences, and needs of each student; and promotes all students'

development and learning

Standard 5 (p.11): Learning Environment

Teachers of grades P–12 have a broad and comprehensive understanding of

student learning environments and demonstrate the ability to establish positive,

productive, well-managed, and safe learning environments for all students,

including:

> **Substandard 5.3 (p.11):**
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> the ability to plan and adapt developmentally appropriate learning
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> environments that reflect cultural competency; are responsive to the
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> characteristics, strengths, experiences, and needs of each student; and
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> promote all students' development and learning
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> **Substandard 5.5 (p. 11):**
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> knowledge of developmentally appropriate classroom management
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> approaches and positive guidance techniques, including relationships
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> between specific practices and student learning, attitudes, and
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> behaviors, and the ability to use this knowledge to create an organized,
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> positive, and productive learning environment that maximizes
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> students' time on task; facilitates learning; and encourages student self-
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> regulation, responsibility, and accountability