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# Exploration of growth mindset application in communication sciences and disorders

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**EXPLORATION OF GROWTH MINDSET APPLICATION IN  
COMMUNICATION SCIENCES AND DISORDERS**

A dissertation submitted to  
the Graduate College of  
Marshall University  
In partial fulfillment of  
the requirements for the degree of  
Doctor of Education

In  
Leadership Studies

by  
Kelly Jean Rutherford

Approved by  
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Marshall University  
May 2019

APPROVAL OF DISSERTATION

We, the faculty supervising the work of **Kelly Rutherford**, affirm that the dissertation, *Exploration of Growth Mindset Application in Communication Sciences and Disorders*, meets the high academic standards for original scholarship and creative work established by the EdD Program in **Leadership Studies** and the College of Education and Professional Development. This work also conforms to the editorial standards of our discipline and the Graduate College of Marshall University. With our signatures, we approve the manuscript for publication.

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## **ABSTRACT**

As early as 1988, Carol Dweck began a line of research connecting motivation and intelligence that later became known as mindset theory (Dweck & Leggett, 1988). This study explored the feasibility of applying Dweck's growth mindset model to challenges in the field of Communication Sciences and Disorder (CSD). Interviews were conducted with higher education administrators who are directly affected by requirements of program standards using a phenomenological design. Findings suggested that growth mindset beliefs and practices are used in many ways across faculty, curriculum, and student domains; however, participants identified growth mindset concepts of willingness to embrace change, learning from the success of others, and an ability to learn from criticism as areas for continued growth. Application of growth mindset principles from an organizational perspective was discussed and future research directions were suggested.

# **CHAPTER 1**

## **INTRODUCTION**

Growth, a concept that can be perceived through frames of physical, spiritual, and intellectual development, has been studied extensively. Despite the human desire to understand these concepts, many of us have beliefs and practices that work against an innate drive to do more and be more. In 1988, Carol Dweck and Ellen Leggett began inquiry into a “social-cognitive” approach to the study of motivation which served as a catalyst for the exploration of motivation in conjunction with intelligence. This early work provided the foundation for the development of Dweck’s growth mindset framework. Subsequently, growth mindset has been applied to the fields of psychology, education, business, and athletics to help promote individual growth and success (Dweck, 2006). The available literature suggests that adopting a growth mindset can result in intellectual enhancement, greater levels of achievement, and improved cognitive flexibility (Blackwell, 2002; Dweck, 1999; 2006; Claro, Paunesku, & Dweck, 2016; Hochanadel & Finamore, 2015; Martin, 2015). With the potential application of growth mindset to an individual’s intellectual growth, researchers have begun to apply growth mindset at the organizational level (Hanson, Bangert, & Ruff, 2016a; Kezar & Eckel, 2002; Wagner, 2014). Their work suggests that applying a growth mindset framework at the organizational level can create positive change – such may be the case for the field of Communication Sciences and Disorders.

The field of Communication Sciences and Disorders (CSD) is comprised of the related disciplines of speech-language pathology, audiology, and speech and hearing science. These autonomous professions are guided by the American Speech-Language-Hearing Association (ASHA) on the national level, and it is well accepted in medical and educational communities that licensure by ASHA means professionals have met a set of established criteria preparing

them to effectively participate in the work force. Criteria for licensure include completion of an accredited graduate academic program, achievement of the 80% pass rate benchmark score on the professional Praxis examination, and maintenance of licensure through meeting continuing education requirements (ASHA, 2016a; 2016b). As with any governing body, ASHA provides oversight for issues that could potentially threaten both the longevity and autonomy of the field: these issues are primarily rooted in themes of education, scholarship, and promotion of the discipline (ASHA, 2002; CAPCSD, 2016). The Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language Pathology (CAA, 2017) are of particular interest as they relate to the future growth of the field. Three areas where growth mindset principles may have implications are with faculty, curriculum, and students.

Despite the desire for student growth and success articulated by the standards of accreditation, not all students succeed. Auten (2013) conducted research at the community college level and found a connection between the mindset of both teacher and student that leads to academic success. Her recommendation that explicit training in growth mindset concepts can lead to enhanced student “motivation, effort, and persistence” demonstrates the potential impact of adopting a more student-centric approach to instruction. Growth mindset may translate to higher student achievement that can be clearly demonstrated in program assessment at the organizational level that begins with faculty practice and ends with student outcomes.

## **Faculty**

According to the Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language pathology (CAA, 2017), faculty in CSD departments support student development to meet curriculum standards; meet teaching, research, and service expectations of the sponsoring institution; are qualified and competent; and show continued



competence and demonstrate pursuit of lifelong learning (p. 7-9). Despite the weight of these requirements, faculty development in the CSD fields has long been left to the individual faculty member to navigate unless there is an existing mentorship structure (Bennett, 1998; Seymour, Jackson, Sinclair, Weber, & Wilding, 2016). Some initiatives have outlined the need for structured mentorship relationships for newly-minted faculty members (Seymour et al., 2016; Wright-Harp & Cole, 2008); however, a true check and balance of these initiatives rarely occurs. Wright-Harp and Cole (2008) note that faculty are widely assumed to be “keen stewards of the mentoring process,” yet they recognize that these individuals receive little to no training in the way of mentorship as a component of their education. Additionally, training in pedagogy does not occur at the master’s level and does not regularly occur at the doctoral level as the focus of many doctoral programs is scholarship (Folkins, 2016).

Without explicit training in mentorship and pedagogy, faculty in CSD may struggle to find the right balance in their role among the array of responsibilities they face each day. CSD researchers (Folkins, 2016; Ginsberg, 2010) have recognized the importance of developing teaching as a practice, and there is a sense of growth in many faculty as a result. A study by McCrea and Ginsberg (2009) found that more than three-quarters (81%) of CSD faculty agree that the scholarship of teaching and learning (SoTL) is important to their success as teachers and is essential to their students’ success. Alarming, just over one-quarter (30%) strongly agree that they actively use SoTL literature when designing courses. These findings correlate with findings related to social bias toward issues of growth that do not match actual practice (Dweck & Henderson, 1989; Dweck, 2006). Specific faculty development initiatives that engage an individual in a variety of mentorship experiences and active instruction in pedagogy may benefit those working in academe.

## **Curriculum**

Curriculum is another area of concern that may benefit from a growth mindset perspective. Standard 3.0B, Curriculum in Speech-Language Pathology (SLP), states that it is the responsibility of the faculty to ensure students meet “Professional Practice Competencies,” understand “Foundations of Speech-Language Pathology Practice,” and that they can identify, prevent, evaluate, and treat speech, language, and swallowing issues (CAA, 2017, p. 20-23). In addition, a successful program effectively plans, organizes, reviews, and implements knowledge consistent with practice guidelines (p. 24). These are minimum expectations and they must occur within the constructs of both classroom/academic work and clinical education, all while upholding acknowledgement of diversity and responsible use of research (p. 25-28).

As previously noted, not all CSD faculty members have had explicit training in the area of pedagogy and even fewer have taken courses dedicated to curricula. If we understand curriculum as what we teach and pedagogy as how we teach it, then a mechanism must exist that facilitates growth in these areas. Smith-Olinde and Ellis (2018) discussed the importance of the SoTL in CSD, and sought to discover how CSD doctoral programs educate PhD students about teaching in higher education. They found that courses (typically seminars) or experiences (e.g., appointment as a teaching assistant) in teaching existed at all universities, yet fewer than 60% required participation in these teaching opportunities. Despite a broad-based push to spread information on student-centric practice to the masses, instructor-centric learning environments are still prevalent and curricular structures do little to promote needed change (Chan, Fong, Luk, & Ho, 2017; Fenwick & Edwards, 2014). The lack of explicit training related to curriculum and pedagogy may be a contributing factor to the slow moving shift toward student-centric teaching

practices. Using a growth perspective to advance curricular decision-making may result in a clearer understanding of curriculum models.

## **Students**

Faculty and curriculum as targets of growth mindset application ultimately direct the degree to which students are affected. Standard 4.0, Students, requires students to “meet or exceed institutional policy for admission to graduate study” (CAA, 2017, p. 29). In addition, the requirements to make reasonable accommodations for individual students and policies for intervening when students do “not meet program expectations” are noted (p. 29). Students have the right to support services and regular advising throughout their enrollment with the institution (p. 31-32). Furthermore, as students progress toward meeting standards, credentialing must be documented and this documentation must be made available to the student (p. 31). The role of the institution is to successfully guide students toward professional competence in the fields of audiology, speech-language pathology, or speech and hearing science. Therefore, the expectation is student growth.

## **Growth Mindset**

A mark of student-centric education is a focus on growth and development of the student. Carol Dweck’s work on growth mindset provides a framework for operationalizing this student-centric model of education. Dweck sought a deeper understanding of the factors associated with non-cognitive learning mechanisms and created a research line that demonstrates the power of having a growth mindset toward individual success (2006). Dweck defines growth mindset as a belief that “...your basic qualities are things you can cultivate through your efforts, your strategies, and help from others” (Dweck, 1999, p.20; Dweck, 2006, p.7). Dweck and other researchers in the field of positive psychology have established that growth mindset can be

explicitly trained; as a result, an instructional shift has begun where many K-12 educators are including growth mindset principles in the curricular and social-emotional instruction they provide to children.

The objective of growth mindset training is to develop characteristics of a growth mindset in an individual and deconstruct existing fixed mindset beliefs. Fixed mindset is defined as a belief that "...your qualities [i.e. intelligence] are carved in stone" (Dweck, 1999, p.20; Dweck, 2006, p.6). Characteristics of fixed mindset create the barriers to growth mindset. Table 1 provides a side-by-side look at the specific differences between growth and fixed mindset.

Table 1

*Growth versus Fixed Mindset*

Growth Mindset Beliefs	Fixed Mindset Beliefs
Intelligence is dynamic and can be developed; it is not fixed, or static.	Intelligence is static and cannot be changed or developed.
Belief in intelligence malleability leads to a desire to learn.	Desire to be perceived as smart by others.
Belief in intelligence malleability causes people to embrace changes.	Tendency to avoid challenges.
Belief in intelligence malleability causes people to persist in the face of setbacks.	Tendency to get defensive or give up easily.
Belief in intelligence malleability allows us to see effort as the path to mastery.	Perceives effort as fruitless.
Belief in intelligence malleability allows us to learn from criticism.	Ignores useful negative feedback.
Belief in intelligence malleability allows us to find lessons in the success of others.	Feels threatened by the success of others.

(adapted from Holmes' illustration, in Dweck, 2006, p. 263)

Importantly, the end result of an individual adopting a growth mindset is a higher level of achievement; whereas, the end result of a fixed mindset is an intellectual plateau and stifled

potential. In order to better understand the foundation of growth mindset development, growth mindset indicators and their related applications can be seen in Table 2. Ultimately, the goals are for educators to have a personal growth mindset, apply growth mindset through their work, and model (if not explicitly teach) growth mindset for their students.

Table 2

*Growth Mindset Explained*

<i>Column A</i>	<i>Column B</i>
What growth mindset does...	How growth mindset can be applied...
Intelligence is dynamic	Praise should focus on the process, rather than the trait – i.e. strategies, effort, and choices should be praised, not talent.
Desire to Learn	Use constructive criticism that promotes strategy generation and teaches flexibility.
Embrace Changes	Remember that a goal should allow individuals to expand their skills and knowledge; it is not an innate talent.
Persistence in the face of setbacks	Present new information in a growth framework and give process feedback.
Effort as the path to mastery	Remember that good teachers are intrigued by the learning process and believe in intellectual growth.
Ability to learn from criticism	Require full commitment and effort, rather than error-free learning. Give the coaching needed for success.
Find lessons in others' success	Our mission is to develop people's potential.

(Dweck, 2006, p. 221-222; Holmes illustration, in Dweck, 2006, p. 263)

Tables 1 and 2 highlight specific beliefs that individuals hold about their intellectual ability. Dweck suggests that generations of individuals have not had explicit training in mindset concepts and strategies and consequently subscribe to what she has coined as a fixed mindset – this includes many of the students enrolled in higher education today. Furthermore, faculty in

higher education (for the most part) lack explicit training in intelligence malleability and are unaware of how to develop a growth mindset in themselves and their students (Yeager & Walton, 2011). Thus, growth mindset concepts may serve as a catalyst for change in faculty development, improved curricular design, and enhanced student engagement and achievement.

### **Purpose Statement**

Communication Sciences and Disorders is a complex and dynamic field; as such, the field is facing a number of challenges including the need to promote practices that maintain the autonomy of the field and a need to engage more professionals in doctoral level study. A recent program development initiative by Hull and Coufal (2009) at Wichita State University relying heavily on mentorship and establishing connections centered on a central theme of individual growth appears promising as it uses partnership and collaboration as a way to overcome the challenge of too few doctoral level professionals. Concurrently, the field is transitioning from a more traditional assessment and learning model to a more student-centric model focused on student growth (CAA, 2017). Carol Dweck's growth mindset provides a promising framework for operationalizing student-centric education and can be applied in a variety of ways, including personal growth and program enhancement (2006). Historically, Dweck's work has been used in K-12 education, psychology, athletics, and business, but has rarely been applied in a higher education context (Hochanadel and Finamore, 2015). Given the challenges confronting the field of CSD, findings from Dweck and others working in related areas (Blackwell, 2002; Claro et al., 2016; Duckworth, Peterson, Matthews & Kelly, 2007; Hochanadel and Finamore, 2015) suggest a possible application for using the growth mindset model to influence faculty, curriculum, and students in CSD programs. CSD higher education programs are uniquely aware of these issues as they educate future professionals and implement the standards by which the profession is guided.

As no available literature exists in the field of CSD aligning growth mindset principles to program development, this study may fill the literature gap and begin discussion on the likelihood of introducing growth mindset actions toward discipline change. Therefore, the purpose of this study is to investigate the feasibility of applying Carol Dweck's growth mindset model to select standards of Speech-Language Pathology education programs. Select accreditation standards will serve as an anchor for this growth mindset exploration.

### **Research Questions**

The following research questions were developed to guide this study:

1. To what extent is it feasible to use growth mindset principles in faculty development initiatives for Speech-Language Pathology programs?
2. To what extent is it feasible to use growth mindset principles in the curriculum decision-making process for Speech-Language Pathology programs?
3. To what extent is it feasible to use growth mindset principles in student learning initiatives for Speech-Language Pathology programs?

### **Significance of Study**

The intent of this study is to make recommendations concerning programming that may influence student and faculty growth by aligning growth principles to accreditation standards - specifically in the areas of faculty, curriculum, and students. This study has the potential to create a dialogue surrounding specific training for faculty and students on growth mindset development; use of growth mindset practices to advance program curricular decisions; and the importance of student-centric education practices. Currently, no literature exists in the field of CSD tying growth mindset principles to program development, thus this study seeks to fill the

literature gap and begin discussion on the likelihood of introducing growth mindset principles as a mechanism for change.

### **Delimitations**

All research studies host a series of delimitations that serve as mitigating factors to create boundaries and define sets of information (Simon, 2011). Delimitations established for this study include the use of selected accreditation standards as framework anchors; selection of study design; and geographic narrowing of potential subjects. This study has been limited to include Standards 2.0 (Faculty), 3.0B (Curriculum in Speech-Language Pathology), and 4.0 (Students) as areas of interest as they have the most potential to be affected by implementation of a growth mindset framework for change. Lastly, the restriction of geographic region was implemented to identify the most likely participants and create a sense of relevance based on cultural experiences (Creswell, 2014). Participant selection was limited to states surrounding the state of the researcher to define a regional boundary to define a research zone.

### **Chapter Summary and Study Overview**

As stated above, the American Speech-Language-Hearing Association and the academic programs that operate under its guidelines face issues that may affect the autonomy of the profession due to a need for advanced research, enhanced professional leadership, and a stagnant number of qualified faculty to educate tomorrow's professionals. Approaching these programmatic issues from Carol Dweck's growth mindset perspective may drive the professions successfully into the future. This study is organized in the following manner: chapter one serves to introduce the study and specific research questions; chapter two serves as a review of current literature related to this study; chapter three explains the intended research methods; chapter four provides the research findings related to faculty standards; chapter five provides the research



findings related to SLP curriculum standards; chapter six provides the research findings related to student standards; and chapter seven provides a summary of the study including conclusions, implications, and recommendations for future research in this area.

## **CHAPTER 2**

### **LITERATURE REVIEW**

Growth mindset as a framework for education delivery is a result of the evolution of the fields of psychology and education over time. Each influences the other; whereby, a host of collaborative works has resulted in a literature-base and theoretical foundation for narrow units of study, such as intelligence, motivation, cognition, curriculum, and administration. This chapter is organized, as such, to explore the background of growth mindset inception and application, align growth mindset principles to modern educational practice, and connect this information to recent trends in CSD graduate program practices.

#### **History of Growth Mindset**

Intelligence, motivation, and the relationship between the two have been explored by many scholars in the field of psychology throughout history due to the common misalignment between them (Blackwell, 2002; Cook & Artino, 2016; Duckworth et al., 2007; Dweck, 1999, 2006; Dweck & Henderson, 1989; Dweck & Leggett, 1988; Ford, 1992; Gardner, 1993; Horn & Cattell, 1966; Yeager & Dweck, 2012). Carol Dweck is the modern researcher credited with developing the concept of growth mindset as it developed from her earlier work in the areas of intelligence and motivation. More recently, the work of Dweck (1999, 2006) and other positive psychologists (Csikszentmihalyi 2014; Duckworth, 2016; Seligman, 1990) have sought to find ways that motivation and frame of mind can enhance intelligence. It is becoming more and more accepted that intelligence is malleable, whereas, it was once thought to be static; hence, there is much excitement for the direction in which this information will take educational systems in the years to come.

## **Growth Mindset and Intelligence Theory**

There are many theories of intelligence, though central to growth mindset are the concepts of incremental theory of intelligence and entity theory of intelligence. Incremental Theory of Intelligence (or implicit intelligence) is the theory that intelligence is a “...dynamic quality that can be increased” (Dweck & Leggett, 1988; Dweck, 1999) which aligns it with growth mindset. In contrast, Entity Theory of Intelligence is the theory that intelligence is a “...fixed, concrete internal entity ...” (Dweck & Leggett, 1988; Dweck, 1999) thus aligning entity intelligence with fixed mindset. Both originate from earlier developed social-cognitive theories of intelligence, whereby it is understood that an individual’s belief system is a byproduct of her internal dialogue which can be either positively or negatively influenced by social and environmental systems (Dweck & Leggett, 1988). Importantly, Dweck stipulates that individuals may have shifting beliefs based on situations and interactions that result in a fluidity between the two types of intelligence that can be attributed to the adherence to growth mindset in some situations and fixed mindset in others (2006).

The earliest concepts of intelligence malleability can be traced back to Horn and Cattell’s concept of fluid and crystallized intelligence (1966). These researchers stipulated that fluid intelligence decreases over one’s lifespan, whereas crystallized intelligence increases (Knowles, Holton, and Swanson, 2015). This theory was groundbreaking in that it was the first to dispute the idea of a general level of IQ where the individual is either capable or not.

In 1983, Howard Gardner’s Multiple Intelligences Theory (MIT) was introduced. Gardner defined intelligence as a processing capacity to solve problems or create products that are of value in some context (1993). Gardner portrays intelligence as variable depending on skill sets and recognizes intelligence can be developed over time. MIT was a compelling alternate

view to the origins of intelligence theory and has been influential in the educational environment in molding the way teachers and administrators view students' abilities. Prior to Gardner's development of MIT, psychologists and educators more commonly subscribed to the standard view of intelligence as measured by IQ tests (Visser, Ashton, & Vernon, 2006). These tests generated a single score representing an individual's skill, resulting in pure objective measurement of ability by tests and rank ordering of students based on their results.

Carol Dweck began her work on incremental and entity intelligence theories in the mid-'80s first with Albert Bandura and later with Ellen Leggett. It was the work with Leggett that began attaching intelligence to social constructs and internal dialogue – which can be more concisely described as motivation (Leggett & Dweck, 1986). In their 1988 article “A Social-Cognitive Approach to Motivation and Personality,” Dweck and Leggett describe their research findings about intelligence beliefs as follows:

Some children favor what we have termed an incremental theory of intelligence: They believe that intelligence is a malleable, increasable, controllable quality. Others lean more toward an entity theory of intelligence: They believe that intelligence is a fixed or uncontrollable trait. Our research consistently indicates that children who believe intelligence is increasable pursue the learning goal of increasing their competence, whereas those who believe intelligence is a fixed entity are more likely to pursue the performance goal of securing positive judgments of that entity or preventing negative judgments of it. (Dweck & Leggett, 1988, p. 262-263)

Dweck developed the theory of implicit intelligence and the framework for growth mindset to provide explanations for behavioral reasons some individuals succeed and others do not (1999; 2006). She concluded that intelligence can be improved upon and people achieve their true potential through motivation and growth.

In light of both MIT and Incremental Intelligence Theory, both Gardner (1993) and Dweck (2006) note their theories of intelligence value effort, strategy generation, and growth as cornerstone to high levels of achievement. Additionally, both researchers perceive their theories

as adding to a body of research, rather than as absolute, indicating there is merit in understanding both as potential explanations for processes of intellectual development. The broad understanding of multiple intelligences and the impact of beliefs on their function merits further exploration of the social-cognitive construct of motivation as central to the idea of growth.

### **Growth Mindset and Motivation Theory**

As previously mentioned, the basis for the development of the growth mindset framework originated from study of intelligence theory and motivation theory. Traditionally, it is accepted that there are 32 theories of motivation according to Martin Ford (1992). These include the following (Ford, 1992, Ch. 6):

Table 3

*Ford's List of Motivation Theories*

Ford's List of Motivation Theories	
Psychoanalytic Theory	Instinct Theory
Control System Theory	Motivational Systems Theory
Goal Orientation Theory	Idiographic Theory of Goal Content
Self-efficacy/Social Cognitive Theory	Goal-setting Theory
Self-determination Theory	Theory of Personal Investment
Effectance Motivation Theory	Optimal Experience Theory
Learned Helplessness/Optimism Theory	Self-worth Theory
Reactance Theory	Personal Causation Theory
Differential Emotion Theory	Causal Attribution Theory
Theory of Action Control	Theory of Reasoned Action
Expectancy-value Theory of Achievement	Expectancy Theory of Work
Operant Learning Theory	Social Learning Theory
Optimal Level Theory	Equity Theory
Actualization Theory	Cognitive Dissonance Theory
Need Theory	Field Theory
Drive Theory	Two-factor Theory

In 2016, Cook and Artino sought to clearly define modern theories of motivation, including goal orientation theories which include Dweck’s work. This study was significant in that it outlined the primary forms of motivation theory to include attribution theory, expectancy-value theory, social-cognitive theory, self-determination theory, and goal orientation theory in consideration of how motivational theory has evolved over time and the blurring of lines between indicators for each (p. 999-1000). Cook and Artino’s (2016) analysis of motivation theories identified four themes shared among these theories, which include elements of competence, value, attributions, and social-cognitive elements. Table 4 summarizes each of these theories according to the taxonomy described in Cook and Artino’s work.

Table 4

*Modern Motivation Theory*

	Attribution Theory	Expectancy-Value Theory	Social-Cognitive Theory	Self-Determination Theory	Goal Orientation Theory
Competence	Perceived ability, effort, luck, etc.	Perceived ability	Self-efficacy for learning	Dependent on psychosocial need	Perceived ability (incremental or entity mindset)
Value	Potential outcome	Expectant success and task value	Performance, feedback, rewards	Amotivation, extrinsic motivation, intrinsic motivation	Intrinsic or extrinsic
Attributions	Locus, stability, controllability	Affective memories, goals, self-concept	Past experiences, aptitude, social support	Interest, compulsion	Performance or mastery goals, helplessness versus effort
Social-Cognitive Elements	Social influences, environment	Life events, social influences, and environment	Social support, reward	External demands, social conditions, reward	Social influences, coaching, feedback

(summarized from Cook and Artino, 2016)

Cook and Artino (2016) classify Dweck and Leggett’s (1988) implicit theories of intelligence as a brand of goal orientation theory with mastery goals being the target.

Importantly, there are two levels within goal orientation theories of motivation: mastery goals (relative to growth mindset) and performance goals (relative to fixed mindset). Ford notes that this can be a meaningful way to look at “a range of motivational problems at both the situation-specific and personality levels of analysis” (1992, p. 171). Furthermore, he states that motivation can be analyzed both “within an episode” (i.e. situation) and “across an episode” (p. 84).

Goal Orientation Theory – and specifically mastery goal motivation – establishes that learners engage in tasks with the intent to master content through deep learning and interest, and they do so with the notion that they are able to grow and are willing to try a variety of strategies to achieve the goal (Cook & Artino, 2016; Dweck, 1999, 2006). Andrew Martin further highlights Dweck’s notions of strategy development and use as imperative to goal orientation theory (2015). Importantly, Dweck and other researchers recognize that mindset is malleable, including the potential that a fixed, or entity mindset can be “unintentionally reinforced” (Cook and Artino, 2016) through the feedback of others, resulting in a shift to performance goal motivation in certain situations (Dweck, 2006).

Ford suggests that goal-orientation theories have “proven to be a heuristically useful tactic in dealing with a range of motivational problems at both the situation-specific (behavior episode) and personality [behavior episode schemata] levels of analysis” (1992, p.171). Importantly, he cautions that use of strict constructs such as Dweck’s categories of helplessness versus mastery achievement may fall short at capturing the scope of motivation contributors as he notes there are “...unique and joint contributions of emotions and personal agency beliefs to motivational patterns and behavioral regulation” (1992, p.122).

## **Modern Educational Practice**

The study of intelligence in psychology is a major contributor to development of educational practices and historically has set the tone for instructional design (Knowles et al., 2015). Furthermore, some scholars have continued to view the fields of psychology and education as inextricable from one another: Malcolm Knowles, Patricia Cross, Andrew Martin, and David Cook are a few of the researchers that have aided in keeping the connection alive. The classic theories of innate talent and fixed intellect were cornerstones to the educational practice of objective assessment where students are seen as performers. Ideas such as Dweck's, however, are beginning to change the culture of the educational environment to include broad-scope ideas of malleability and growth.

An essential component of mastery goal motivation and incremental intelligence theory that has emerged from the work of Dweck and others is that growth mindset is able to be taught (Blackwell, 2002; Claro et al., 2016; Duckworth et al., 2007; Dweck, 2006; Hochanadel & Finamore, 2015). Research has primarily taken place in the K-12 arena that demonstrates how to teach growth mindset and mastery goal motivation to children and adolescents with positive outcomes. In a study by Blackwell (2002), junior high school students were analyzed in a two-part study. She demonstrated that students who held an incremental theory of intelligence achieved higher math grades than those who did not, and additionally found that incremental theory was able to be taught, resulting in increased math scores post-intervention (2002). These findings led to the conclusion that teaching growth mindset to students can result in improved effort and higher achievement.

This information led to a handful of researchers seeking to analyze implications of teaching growth mindset principles to young adults. Hochanadel and Finamore (2015) were



among those who sought to more clearly look at application of growth mindset at the college level. They report the similarities of growth mindset, as defined by Dweck (2006), and grit (i.e., long-term persistence), as defined by Duckworth et al. (2007), to conclude that “having a growth mindset can develop grit” (p. 49).

### **Organizational Growth Mindset in Schools**

It has been established that interpersonal growth mindset exists and that it can be taught across human development (Dweck, 2006; Yeager & Dweck, 2012). An additional scope of growth mindset that remains to be established is the idea of an organizational growth mindset. In an effort to establish growth mindset as a response to organizational growth needs, researchers have applied growth mindset principles and applications to a few different settings. Wagner (2014) sought to apply these principles working from the hypothesis that an administrator’s interpersonal mindset would dictate her practices. Interestingly, not all participants in the study identified as having a growth mindset, yet all of them endorsed mastery goal practices and structures, demonstrating that interpersonal mindset and practice do not always align. This imbalance shows an alternate side to a caution from Dweck that an individual may have an interpersonal growth mindset but use entity-style practices (2006), and aligns with the early findings of Dweck and Henderson (1989) where individuals tend to choose mastery-oriented statements due to social biases rather than actual beliefs and actions.

In 2016 (a), Hanson, Bangert, and Ruff of the Macrothink Institute created the What’s My School Mindset (WMSM) survey (2016b) to measure the organizational mindset of educational entities. Hanson et al. began with the understanding that “... a school’s organizational structure influences teachers’ beliefs in their collective ability to help all students grow and learn ...” (p. 223) and sought to determine if the presence of implicit theories of

intelligence contributed to improved school performance. The authors concluded that the WMSM Survey provided reliable information for the relationship between school growth mindset and organizational variables explaining school improvement such as principals' openness to change, faculty openness to change, and locus of control. Importantly, they note the pivotal role of the principal or administrator in creating a positive environment where individuals are open to change and development (2016a). Both the Hanson et al. and the Wagner studies provide background to support consideration of growth mindset from an organizational vantage point.

### **Trends in CSD Program Practice**

Application of growth mindset principles to programmatic matters in CSD fields may be a natural extension of previously attempted solutions to programmatic issues. As noted in the introduction, growth of the profession has been steady and this can be accomplished only through an active leadership team that believes in the power of change. Adams (2015) explored the influence of leadership and environments on accreditation in CSD programs, but the current study seeks to infuse exploration of a potential solution. Specific utilization of growth mindset principles for the areas of faculty, curriculum, and students from the perspective of accreditation standards is an untapped avenue that warrants exploration.

### **Faculty, Curriculum, and Students in CSD Programs**

The Council on Academic Accreditation (CAA) in Audiology and Speech-Language Pathology was created in January of 1996 and is the body of oversight for graduate programs in speech-language pathology. As with most fields, accreditation is the seal of approval needed to operate a graduate program in CSD. The CAA provides a set of standards that must be met in

order to maintain accreditation and each site is reviewed periodically to ensure it is meeting CAA criteria. CAA Standards include the following areas:

- Standard 1.0 Administrative Structure and Governance
- Standard 2.0 Faculty
- Standard 3.0A Curriculum in Audiology
- Standard 3.0B Curriculum in Speech-Language Pathology
- Standard 4.0 Students
- Standard 5.0 Assessment
- Standard 6.0 Program Resources

(CAA, 2017)

Review of the literature led to the determination that Faculty, Curriculum, and Students were the areas most appropriately related to Dweck's growth mindset principles; therefore, these areas have the most potential to be improved when viewed from a lens of growth.

The Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language Pathology (CAA, 2017) require the following within the categories of faculty, curriculum, and students:

1. Faculty in CSD departments must support student development to meet curriculum standards; meet teaching, research, and service expectations of the sponsoring institution; be qualified and competent; and show continued competence and demonstrate pursuit of lifelong learning (pp. 7-9).
2. Curriculum includes the responsibility of the faculty to ensure students meet "Professional Practice Competencies," understand "Foundations of Speech-Language Pathology Practice," and identify, prevent, evaluate, and treat speech, language, and

swallowing issues (pp. 20-23). A successful program must also effectively plan, organize, review, and implement knowledge consistent with practice guidelines (p. 24).

3. Students are required to “meet or exceed institutional policy for admission to graduate study” (p. 29). In addition, the requirements to make reasonable accommodations for individual students and policies for intervening when students do “not meet program expectations” are noted (p. 29). Students have the right to support services and regular advising throughout their enrollment with the institution (pp. 31- and 32). Furthermore, as students progress toward meeting standards, credentialing must be documented and this documentation must be made available to the student (p. 31).

Looking at these standards through a lens of motivation allows for potential alignment with Cook and Artino’s (2016) highlights of modern motivation theory. These standards account for determination of competence, establishment of value, placement of attributions, and recognition of social-cognitive elements for meeting criteria. Aligning the Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language Pathology (CAA, 2017) with Goal-Orientation Theory may allow for analysis of practices that are either performance-based or mastery-based. As such, analysis of standards related to faculty, curriculum, and students holistically and from a growth mindset perspective may help the American Speech and Hearing Association (ASHA), program directors, faculty, professionals, and students find new ways to work toward a solution by providing an alternative outlook for the future of CSD.

An example of goal-mastery orientation can be seen in Raymond Hull and Kathy Coufal’s description of an innovative partnership between two universities which matches graduate students and practicing professionals with an avenue of doctoral study (2009). This program is referred to as the “grow-your-own PhD initiative” and is a partnership between

Wichita State University and Fort Hayes State University. Their model of implementation relies heavily on mentorship and connections, which follows many preferred teaching practices in the current literature and echoes themes of growth such as openness and strategy generation (Hinsdale, 2015; Knowles et al., 2015).

It may be possible to soften the issue of organizational/institutional compliance with explicit instruction and organizational buy-in to growth mindset practices. Finding a mechanism whereby successes of other institutions are made public to cultivate strategy generation in others; praise for positive effort toward finding a solution by accrediting bodies; and explicit growth mindset training for administrators, faculty, clinical educators, and students would be a good start toward creating motivation and igniting change.

## **CHAPTER 3**

### **METHODS**

The current study explored the feasibility of applying growth mindset principles to selected challenges in the field of communication sciences and disorders. This chapter provides information on the methods to be used throughout. This chapter is organized into sections on research design, subject selection, participant characteristics, interview protocol, and data collection and analysis.

#### **Research Design**

Qualitative design was selected to carry out this study. Schwandt (2007) defines qualitative inquiry as:

a blanket designation for all forms of social inquiry that rely primarily on qualitative data (i.e., data in the form of words) including ethnography, case study research, naturalistic inquiry, ethnomethodology, life-history methodology, and narrative inquiry. To call a research activity qualitative inquiry may broadly mean that it aims at understanding the meaning of human action (pp. 247-248).

Schwandt continues to explain that qualitative research is research of words (non-numeric) and gives a method of exploration through a paradigm that is non-experimental. From this vantage point, we can better understand human action from a social science perspective.

A phenomenological design was followed for this study as it is exploratory in nature. According to Creswell, “Phenomenological research is a design of inquiry coming from philosophy and psychology in which the researcher describes the lived experiences of individuals about a phenomenon as described by participants” (2014, p. 14). Furthermore, Schwandt (2007) indicated that phenomenology is the study of “everyday experience from the point of view of the subject” (p. 226). The subjectivity of responses from participants is considered a strength of this method of inquiry as they are immersed in the experience of the topic (Schwandt, 2007). The

researcher must identify themes and discover the lessons therein. Growth mindset has not previously been applied to CSD programs in the literature; therefore, a phenomenological study serves as an appropriate first step.

Phenomenology is a form of qualitative research whereby information is gathered through descriptions received from those living the experience (Schwandt, 2007; van Manen, 1990). Van Manen (1990) refers to this type of research as description of the “lifeworld,” explaining that phenomenology is the study of “lived or existential meanings” (p. 11). Presently, those with administrative experience in CSD higher education programs have the lived experiences that provide valuable insights in understanding what decisions are made and why.

Information received through interviews offers a richness that may otherwise have been missed by a quasi- or true experimental design. Data analysis for qualitative design, and specifically phenomenology, finds significance in statements, synthesizes information into meaningful units, and is finally developed into an “essence description” (Creswell, 2014; Moustakas, 1994). The degree of rigor in phenomenological research provides structure for reliability and validity similar to that sought by scientific communities that value quantitative methods (Creswell, 2014).

Phenomenological methods also provide a reflective view of life. Van Manen (1990) states:

A person cannot reflect on lived experience while living through the experience. For example, if one tries to reflect on one’s anger while being angry, one finds that the anger has already changed or dissipated. Thus, phenomenological reflection is not introspective but retrospective. Reflection on lived experience that is already passed or lived through (p.10).

This study sought to collect a repertoire of administrators’ experiences to determine if growth mindset principles can be used (or have been used) to drive choices and decisions made in their

respective programs. The reflection that occurred through the interview process allowed participants to think more objectively about specific program initiatives, challenges, and routine workings in the absence of emotive effects. The retrospective vantage allowed for critical analysis of prior decisions made, examples of program successes and failures, and regard for the variance in collaborative relationships among faculty.

### **Population**

The population for this study consisted of current or former Communication Sciences and Disorders (CSD) department chairs and graduate program directors as it is their responsibility to compose reports and collect evidence of how their departments meet accreditation standards. Geographical region was limited to the following states to manage the scope of the study: Kentucky, Maryland, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. A department chair and graduate program director from the same institution were not interviewed to diminish the likelihood of participants discussing the study outside of its confines and to maintain the integrity of the data. Additionally, only institutions granting master's degrees were included; specific CSD PhD granting institutions were excluded.

A master list of 40 CSD master's degree granting institutions in the identified states and random selection of 10 institutions determined the first round of individuals invited to participate. Additional participants were sought through snowball sampling to achieve a sufficient amount of data, though eventually, all prospective participants were contacted via email to achieve the final study sample. The study goal was to complete 15 to 20 interviews with a stratification plan defining the number of participants from each identified state to ensure proper representation of the intended population (Creswell, 2014, p. 158-159). The planned stratification for number of schools per state and actual number achieved is provided in Table 5.



Table 5

*Stratification Plan*

State	Number of master's degree granting institutions within criteria	Intended distribution of participating institutions	Actual distribution of participating institutions
Kentucky	4	2	2
Maryland	2	1	2
North Carolina	3	1-2	1
Ohio	6	2-3	2
Pennsylvania	13	5	3
Tennessee	2	1	0
Virginia	4	2	3
West Virginia	2	1	1
District of Columbia	4	2	1
Total	40	17-19	15

**Participant Characteristics**

The population for this study included department chairs and graduate program directors for Communication Sciences and Disorders (CSD) graduate programs. The total number of participants in this study was  $n=15$  out of a targeted population of 40 potential interviewees which is a response rate of 37.09%. Demographic characteristics of the final group of participants are provided in Table 6.

Table 6

*Participant Characteristics*

Characteristic	n	%
Sex		
Male	3	20.0
Female	12	80.0
Age		
26-35	0	0.0
36-45	3	20.0
46-55	1	6.7
56-65	9	60.0
66+	2	13.3
Title/Position		
Chair	7	46.7
Graduate Program Director	3	20.0
Both	5	33.3
Length of Service in this Administrative Role		
Less than 5 years		
5-9 years	4	26.7
10-14 years	7	46.7
15 years +	3	20.0
	1	6.7
Additional Administrative Experience*		
Yes	8	53.3
No	7	46.7

\*Additional administrative experience defined for the purpose of this study as previous appointment as department chair, graduate program director, undergraduate program director, or clinic director of a CSD program.

## **Interview Protocol**

### **Development of Interview Protocol**

The power of interviews as a research method is the flexibility they provide in consideration of the variability across programs (Creswell, 2014; van Manen, 1990). This study explored the feasibility of applying growth mindset principles to issues faced by speech-language pathology graduate programs, therefore, interviews were a natural choice. Potential relationships were identified between growth mindset principles and the selected accreditation standards; this variable analysis guided additional research regarding application of growth mindset to higher education and also provided guidance in the development of specific research questions.

Additional literature review offered greater insight regarding the application of growth mindset principles to higher education assessment practices. Given the exploratory nature of interviews, it is essential to create an interview protocol that follows a framework where each growth mindset indicator is directly applied to the core research questions. The framework used to guide this study was developed following thorough review of the literature and in consideration of the primary objective to apply Dweck's growth mindset framework to speech-language pathology graduate programs. Growth mindset principles were aligned with select accreditation standards for faculty, curriculum (speech-language pathology), and students.

A pilot study with one participant was completed prior to collecting formal interviews from the study sample. Findings from the pilot study assisted with validation of the interview protocol and allowed for discovery of ways to improve questions and probes, as well as address any issues with format (Creswell, 2014, p. 161). General format for the interview protocol did not need to be changed following the pilot study, though order of presentation for concepts did require restructuring. Initially, exploration of accreditation standards as they apply to beliefs and practices in dynamic intelligence occurred first, but it was evident this was too abstract a concept to begin the interview. Willingness to embrace change and finding lessons in the success of others was determined as a more natural starting place to ease participants into the more abstract concepts of belief application.

All interviews were conducted either online or in person and transcribed for analysis. Wording of interview questions was adjusted and follow-up questions added to gather more robust information as is typical for exploratory studies (Creswell, 2014). See Appendix C for complete Interview Protocol.

## **Data Collection and Analysis**

Once participants were established, one-on-one interviews occurred with the participants either online or via telephone. Following initial data collection, interviews were transferred to a safe computer and erased from the voice recording app used. These audio recordings were then transcribed verbatim with only minor commentary added to describe events of the interview, such as pauses and/or to include notes taken during the process (Creswell, 2014).

Analysis occurred in tandem with data collection. Completion of an interview was sufficient for analysis to begin by transcription, creating research memos, and beginning organization for the final study report (Creswell, 2014). Theme identification served as the primary intention of this research whereby themes were identified in accordance with growth mindset principles and accreditation standards. To ensure validity of analysis, Creswell's steps for data analysis in qualitative research (2014, p. 196-200) were followed. These steps include: gathering raw data; organizing and preparing data for analysis; reading through all data; coding the data; identification of themes and descriptions; interrelating themes and descriptions; and interpreting the meaning of themes and descriptions.

## **Validations**

Both quantitative and qualitative design require validation to insure responsible information gathering. The case has been made for why phenomenology is the appropriate research method to use for this study. This study can be viewed as reliable as it seeks to "gain insightful descriptions of the way we experience the world pre-reflectively, without taxonomizing, classifying, or abstracting it" (van Manen, 1990, p. 9). Accessing views and experiences from the CSD administrators who practice their craft daily offers the needed acumen to determine if growth mindset principles can be successfully applied to organizational practices

of adhering to the Standards for Accreditation in Communication Sciences and Disorders programs.

Two mechanisms were used to validate findings: 1. Participant review of the interview transcript and 2. Secondary review of data samples. Following completion of a recorded interview, information was transcribed verbatim for the purpose of analysis and also sent to the participant via email for their own review. Each participant was given approximately two weeks to review their responses, request edits, or make additional comments if necessary. Participant 12 was the only contributor to resend the transcript with request of minor edits, which was fulfilled. The remaining 14 participants either elected not to respond to the request for transcript review or responded indicating the transcript information accurately reflected the interview. Therefore, the information was deemed as valid representations of contributors' lived experiences as CSD administrators.

In addition, secondary review of data samples occurred to check for internal consistency of analysis. Members of the doctoral committee and one research assistant agreed to participate in this review. Of the four reviewers, only one recommended minor adjustments to the initial impressions, but ultimately, agreement was reached on the direction of analysis following face-to-face discussion of the data outcomes. The information gathered and analysis process that occurred were deemed as reliable and valid in illuminating the experiences of participants as they relate to growth mindset principles (Dweck, 2006) and the Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language Pathology (CAA, 2017).

### **Limitations**

Some limitations are inherent in research. Such limitations include use of indirect information, potential for biased responses, and degree of variability between participants in

response style (Creswell, 2014, p. 191). Creswell (2014) stated other potential limitations including lack of generalizability, possibility of receiving socially desirable responses given the absence of anonymity, and standard bias that accrues from an individual's professional experience. These limitations were lessened by following formal qualitative guidelines for semi-structured interviews, where field notes were taken, audio recording occurred, and verbatim transcription was completed.

### **Chapter Summary**

In summary, this study was exploratory in nature and involved interviews of CSD department chairs to determine if there is a place for application of growth mindset principles to issues in CSD programs. The expectation was that study findings will promote longevity and autonomy of the field through enhancing endeavors in the areas of education, scholarship, and promotion of the discipline. Participants were selected from master's degree granting programs in Kentucky, Maryland, North Carolina, Ohio, Pennsylvania, Virginia, West Virginia, and the District of Columbia. An interview framework was followed that merges growth mindset principles and identified areas of concern in a predictable manner to promote study reliability. Thematic analysis of information offered ideas for conclusions, implications, and recommendations regarding use of growth mindset principles at the program level for CSD graduate programs.

## **CHAPTER 4**

### **FACULTY**

The next three chapters are separated according to the specific accreditation standard analyzed. This chapter will focus on Standard 2.0 Faculty of the Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language Pathology (CAA, 2017). As previously stated, interviews were completed, resulting information transcribed, and themes identified to determine the feasibility of using growth mindset principles in faculty development initiatives for Speech-Language Pathology programs. This chapter lays out the themes that emerged, as well as presents information on the administrator's growth mindset beliefs from an organizational perspective, presents evidence of current growth mindset practices, and presents information on areas where use of a growth mindset framework may be used in the future regarding faculty development.

#### **Thematic Analysis**

Interview questions were divided into specific growth mindset categories based on Dweck's principles; these included 1) embracing change and finding lessons in others' success; 2) persistence in the face of setbacks and an ability to learn from criticism; and 3) belief in dynamic intelligence, desire to learn, and effort as the path to mastery (Dweck, 1999, 2006). Participant responses were analyzed and coded as per guidelines for phenomenological study (Creswell, 2014; van Manen, 1990). The following themes emerged for Standard 2.0 (CAA, 2017) as it relates to faculty: personal belief systems, influence of the leader, flexibility, and outcome-oriented practices.

Notably, during nearly all interviews it was necessary to discuss growth mindset from a philosophical viewpoint with the participants to enhance their understanding about the

framework and its application. Dweck discusses growth mindset as a personal construct, but undoubtedly, our actions affect those around us. Participants were encouraged to answer any questions as they saw fit in terms of their own personal mindset tendencies, the array of mindsets found in their faculty and students, or from an organizational lens where they were allowed to respond in general terms. This clarification helped with the comfort level of the respondents as they reflected and provided answers regarding faculty issues. That said, it is a natural extension to discuss the importance of personal growth mindset in faculty members and how their mindset may impact their actions.

Table 7 offers a quick-reference for thematic breakdown of faculty issues when explored through the lens of growth mindset:

Table 7

*Growth Mindset and CSD Faculty - Themes*

Personal Belief Systems	Influence of the Leader	Flexibility	Outcome-oriented Practice
Desire to learn should be natural to faculty.	Beliefs of the leader may influence faculty practices.	Faculty flexibility supports program growth.	Success often comes from the meshing of creativity and necessity.
Faculty role fulfillment is a developmental process.	A leader's role in motivating faculty.	The relationships among flexibility and collaboration.	Faculty mindset may influence student engagement and outcomes.
Faculty accomplishment may enhance intrinsic motivation.	Feedback as a mechanism for growth.	Continued faculty learning as driven by mindset.	
	Leader honesty and transparency create an environment of support.	The relationships among flexibility, effort and resilience.	



## **Personal Belief Systems**

The interviews conducted provided rich information from which themes were extrapolated and meaning applied. The first theme to be introduced is personal belief systems.

Subheadings that will be explored as making up this theme include:

1. Desire to learn should be natural to faculty.
2. Faculty role fulfillment is a developmental process.
3. Faculty accomplishment may enhance intrinsic motivation.

Each of these ideas was discussed at length by a number of contributors, offering both positive and critical views on the concept of personal belief systems and appropriate faculty development over time.

**Desire to learn should be natural to faculty.** Personal belief systems were discussed by all participants, whether in reflection on their own beliefs about mindset or in reflection on the beliefs of the faculty in their respective programs. An element of this theme that occurred multiple times was the importance of faculty possessing a desire to learn. Many expanded on this, noting education may not be the appropriate field for someone if they do not have growth mindset beliefs. Participant 1 began her interview with a response that captured this sentiment when she stated “I think I’ve always felt like everybody needs challenges so they have strengths in certain areas and so you use the strengths to give... motivation and challenge so that they are continually working toward something ... there’s no ending.” This statement and others like it present a desire to learn as a fundamental belief for educators in CSD and beyond. Importantly, this response was expected due to discussion in the literature on social bias (Dweck & Henderson, 1989); however, this expectation does not dilute the views of the administrators interviewed regarding beliefs and practices of the ideal faculty member.

Participant 2 provided additional insight regarding the importance of a desire to learn as a desirable quality in faculty:

We expect faculty to have the same kinds of abilities to change and grow... helping them to be as flexible as they can in how they teach and how they do research and how to do clinical instruction, serve on committees, to do all the other things that are required.

His discussion of an administrator's need to have faculty that embrace growth beliefs is evident, leading to the assumption that these are assets to look for in future faculty and qualities that should be molded in current faculty.

Identifying faculty with a desire to learn along with other necessary growth qualities may be challenging for an administrator, but participant 3 offers an important notion that may be one of the more promising concepts for faculty in the field. She stated, "I think that's a natural piece of us, as people who work with individuals with disabilities..." and she candidly went on to add, "I don't see that necessarily in all other faculties in our university."

A barrier for administrators regarding belief in growth and molding of personal belief systems was discussed at length by participant 4:

You have some faculty who are definitely in the fixed mindset, but then you have people on the other side who are far more positive. So, it's really tough to answer this question, because I have some faculty who it doesn't really matter what you do, they won't see students as beyond their first impression. Motivation plays a huge role. I don't think you're necessarily going to convince all faculty that motivation will help all students. We have a January conference every year, and they talk about teaching and learning and student development. Unfortunately, the people who go to that are the people who are really into teaching and learning and student access to learning. The ones who are sort of

more fixed mindset, don't tend to go to them [teaching conferences]. If faculty can be convinced by either stories that I can tell them or research that I can show them, then they're more likely to buy in and support student development. The big thing that we were discussing the other day was critical thinking, and a lot of our students are not displaying good critical thinking skills and some [faculty] were like, 'Well now we just need smarter students,' and I'm like, 'No we need a better teaching method, and we need to motivate them to learn.' The faculty were already highly motivated are the faculty you can sway with facts and stories. There will be a certain number where it doesn't matter. They will not be convinced that you can make a difference. I don't know why they're educators.

Each of these responses gives information that establishes the importance of personal belief systems and how they shape faculty individually. Whether innate or learned over time, a desire to learn and a general thirst for knowledge may be a highly sought after quality for CSD educators.

**Faculty role fulfillment as a developmental process.** At first glance, it may seem contradictory that a theme emerged surrounding the need for work and development to achieve effective teaching practices and student support, yet the literature presented in chapter two provided information that a gap between belief systems and action sometimes exists. In earlier literature, this is termed a theory-practice gap (Green & Glasgow, 2006), but it is the viewpoint of this investigator that a belief-action gap differs as the breakdown is within an individual and the discrepancy can be different between different people and among different situations. A theme of faculty development needs emerged, which coincides with growth mindset principles. Having a growth mindset indicates that you believe effort is the path to mastery and have an

ability to grow from setbacks. An array of responses captures the idea of teaching and student support requiring development and practice. Participant 2 stated,

The whole premise of faculty development is that you keep growing, so that presumes that there is a growth mindset if you will that people can take advantage of professional development and improve what they do, how they do, what they know... apply that to teaching, to student development, to creative ideas, for new student engagements whether scholarship or community-engaged learning, or what have you into their scholarship and their didactic teaching and their clinical teaching for that matter. That is just part and parcel of what I think we try to do and try to encourage exactly.

This sentiment was echoed in a response offered by participant 3; she reported “I think that a faculty member who sees other changes going on will look into what’s the evidence or what are people writing about. I believe what you’re talking about right now – this Dweck – has well inclined me to look up her work and see what she really has to say. So, it inspires faculty members to keep developing.”

*Setbacks and criticism may result in needed growth.* Setbacks and criticism are part of professional development and life experience, but many of the participants recognize the power in those opportunities. Participant 4 shared an example of a faculty member who was faced with a false accusation of discrimination from a student and how that experience seemed to change her in a positive way.

I had a faculty member who had a charge of discrimination against her lobbied by a student who was not successful in the program, and the faculty member is fantastic when it comes to diversity and inclusion. And this student, it was a really unfair type of charge. She was just like you know what, this hurts, but I'm not going to stop ... And so kudos to

her ... She's persistent ... And, I think what she's learned from that is that... she really does have to work as a team. [This faculty member] likes to have things sort of in black and white. You know, this is the right answer this is the wrong answer. And so, she tends to be a little bit rigid, so I think that this has helped her. I mean she's still persistent in it but she's looking at and she's like OK. Even though I followed all the rules, even though I think I did everything right, even though you know I think what happened with the student was exactly the way it was in the student simply was not able to meet expectations. If she had isolated herself less and worked more as a team she would have done better. But she's persistent. And I think in the future she's going to reach out earlier when she starts seeing problems.

This example gives context for a serious issue that actually resulted in collegial growth for the individual affected. Persistence in the face of setbacks and an ability to learn from criticism are growth mindset principles that were practiced in this instance and allowed for growth in the individual faculty member and learning for the rest of the department.

*Active engagement in the SoTL helps to set the tone for growth from feedback.* Another example of teaching and student support requiring development can be found in examples of engagement in the scholarship of teaching and learning (SoTL). Participant 2 discussed his practice of referring faculty members to their university Center for Teaching Excellence (CTE).

We have embraced our center for teaching excellence here on campus, and I don't think there's a single faculty member that has been hired to this department that I haven't referred to them either for minimal or more substantial support. [Our] faculty are regular contributors to their [CTE] process leading sessions and all kinds of workshops for them.

So, it's a two-way street so we buy into it quite heavily because that is what helps us provide a rich and enhanced student experience.

Participants 3 and 5 encouraged faculty in their departments to explore SoTL to enhance their teaching and student support practice. Participant 3 stated:

I think faculty take that feedback and do their best. They take it very seriously. They take their student feedback very seriously and our faculty are... they have been involved in some modules through the National Center for Faculty Development and Diversity. And, I know that because some of my faculty struggle teaching-wise to meet the expectations, they have engaged in some of these modules that have ideas for how faculty can improve... because of that persistence. And, it does drive my faculty to... there's a lot of faculty on campus faculty seminars, so as an example, just today, one of my staff got her NIH scores back and learned she wasn't discussed well. So, she's going to tackle that and head forward in terms of there's an upcoming seminar here on campus about NIH so that she can learn from them and improve, so that she can revise and resubmit and do better.

Participant 5 echoed these sentiments regarding the importance of SoTL as it relates to a faculty member's development.

We have very open dialogue in terms of ways that the methods that they [faculty] might be using to be able to help our students to persist... And we also do a lot of peer mentoring between faculty members as well. So, that and we will come into the university in terms of the way that we were evaluating our teaching. So, it's a good way for them... all of us to be able to understand taking feedback. So, constructive criticism is to the best interest of the student in terms of looking at those things.

**Faculty accomplishment may enhance intrinsic motivation.** Available literature also suggests that motivation plays a key role in whether we grow or are stagnant. This theme addresses personal belief systems, yet belief systems are also driven by social and environmental influences (Ford, 1992). Some participants reported on the importance of motivating faculty to create growth in a productive way. Participant 4 provides the following example:

They can embrace change I think when they see you know the greater good is served by doing this, and no one else can do it. You just have to find the right carrot. You know it's not just faculty willingness to embrace change because people just they won't embrace change unless there's something in it for them.

Motivation literature suggests the case for the human condition is that both internal and external motivators exist. Participant 4 offers insight to the impact of external motivators toward embracing change, as well as hints at the utilitarian function of working collegially with others as a factor which also touches on the social influence that may motivate an individual.

Sometimes, that external motivation causes an enhanced internal resilience. Such was the case in this example from participant 6:

I think the creation of our program was an example of that... we had a bachelor's only program, and that was shut down and we were persistent in saying 'Not only do we think it shouldn't be shut down, but we think we need to add a master's program.' The provost at the time just said that we were all people... women that wouldn't go away and wouldn't quit. The important thing [is] to keep going, but we had to learn from criticism – and criticism in the positive sense. I think that criticism is a negative term but... 'what was it about our program that people were concerned about? How do we change it to

address people's concerns?' I think it's really important to identify the issues and needs of your audience and tailor your response to that.

Participant 8 described the importance of mindset development over time as relative to maturation:

I think when people don't suffer consequences throughout their life they don't develop... because consequences shape us, and that creates for a lack of maturity. So, if we don't receive feedback and we don't continue to have some kind of formative process to improve and change, and maybe have setbacks but then move forward through criticism or anything then... we end up being something less than what we could be. As we continue to improve ourselves, I can't help but think that [setbacks] inform the way we instruct and do everything that we do with students.

These contributions regarding the theme of personal belief systems speak to the power of mindset and how it can drive faculty to their best work whether it is in terms of faculty support of students, working toward meeting institutional objectives, or continuation of individual professional development.

### **Influence of the Leader**

The second theme that emerged in discussion about faculty was influence of the leader.

Subheadings emerging from the analysis of interview data included:

1. Beliefs of the leader may influence faculty practices.
2. A leader's role in motivating faculty.
3. Feedback as a mechanism for growth.
4. Leader honesty and transparency create an environment of support.



Each participant recognized their responsibility when in a role of leadership and owned the responsibility of setting the tone for program success. Once again, participants offered both positive and critical views on the concept of leadership and the effect their practice has on faculty.

**Beliefs of the leader may influence faculty practices.** One role of a leader is undoubtedly to set the tone for day-to-day operations of a program. Setting this tone can be done in a variety of ways and various styles can be effective. Participants in this study were candid and demonstrated accountability for their role in guiding faculty and shaping program success. Participant 3 demonstrated her personal mindset beliefs through her responses to how growth mindset principles contribute to her faculty meeting institutional expectations:

Well I mean it always inspires us to continue to grow, advance, and expand as an institution by having that kind of a mindset, meeting expectations the institution always has a strategic plan. So, a growth mindset is always thinking, “how can that next strategic plan help us improve ... improve student outcomes ... improve our research?”

Such a response demonstrates that seeing program assessment as an opportunity rather than a mandate clearly reflects growth mindset in action. Participant 3 continues later in her interview admitting that she believes she has always embraced growth mindset tendencies without clearly knowing it. “Facilitators of a growth mindset are - I think - a young faculty. They are much more open to change compared to being set. A barrier would be an older faculty set in their ways and they’re really not interested in changing ... it takes a lot of effort to change.”

This notion was discussed from her experience working through a number of faculty retirements in recent years, which has resulted in new faculty recruitment. Another mention of this large-scale attitude of openness to change was mentioned by participant 8 where he states:

I think ... my philosophy has been, as a department chair for now almost 12 years, is ... to try to find those kind of traits of malleable leadership and ... flexible traits within [new] faculty ... looking at it from a strategic big picture.

**A leader's role in motivating faculty.** Participants by and large acknowledged that each faculty member is different and understand that the concepts of growth and fixed mindset reflect a continuum that can shift based on context. This acceptance suggests that individual faculty members will likely be motivated in different ways – again, “sometimes, you just have to find the right carrot” (participant 4). Participant 6 states this as well: “I’m trying to capitalize on... where they want to grow and where they want to learn. [This] is really critical as the chair to try to keep in mind what are those areas of interest and finding opportunities to connect with those.” As leaders, it is important to know what your faculty’s areas of interests are, to find opportunities for them, and to support their growth in a positive way.

Participant 11 acknowledged that even with the right motivator, time is often a barrier to faculty achieving a goal. In discussing faculty development, participant 11 noted that nearly everyone on his faculty is eager to learn about new teaching methods and improve their acumen with technology integration in the classroom; however, some faculty members chose not to engage in SoTL activities at their university... “I think the main reason was around time.” Tangibly discovering motivators for individual faculty members, while being aware of potential barriers that could hinder needed faculty development is a factor of leadership that greatly influences the practices of a program or department.

**Feedback as a mechanism for growth.** A component of recognizing the influence of a leader may come from understanding the use of constructive feedback as a tool for growth. Participant 1 discussed this in her response to how persistence in the face of setbacks and an

ability to learn from criticism contribute to her program meeting institutional expectations:

“Resilience... it is important that faculty receive criticism and deal with it well, not taking it too personally. Hopefully, you would have feedback, [reflect on] what you learned from it... you move forward and try to make adjustments.” Participant 3 stated of her faculty:

I think faculty take that feedback and do their best. They take it very seriously. They take their student feedback very seriously. Our faculty [are] involved in some modules through the National Center for Faculty Development and Diversity, and I know that because some of my faculty struggle teaching-wise to meet the expectations, they have engaged in some of these modules that have ideas for how faculty can improve... because of that persistence.

Unfortunately, lack of resilience and an inability to take feedback can also be a detriment for higher education faculty. Participant 8 shared an example of this from his program:

We have annual faculty evaluations... We set goals, and I think the faculty set reasonable goals. They're going to receive feedback from me as an administrator or may receive feedback from people they consider to be mentors... or students. I think that certainly affects their ability to achieve and or exceed the goals they set for themselves. People that can't accept that they really are rigid... or if they give up if they're not persistent... I had one faculty member... 10 years ago that just had a hard time receiving feedback from me and criticism or anything else that would be constructive to her moving forward and getting tenure and promotion... It ended up that she didn't get tenure and promotion. Although we just laid it out - almost in a formulaic way - here's the way you do it, but it never resulted in her meeting the institutional expectation that she would cross the scholarship and teaching and service... You have to come to your faculty evaluation and

everything else with that willingness to receive feedback. It seems like every survey I see of anybody when they look at how we evaluate faculty they're always asking about how we respond to feedback. So, none of us like it - particularly when we don't get praised - but I think it's helpful. You know motivates something in us, and I think it's necessary.

**Leader honesty and transparency create an environment of support.** A potential way to facilitate an environment in which faculty are open to constructive feedback and willing to adjust their practices to achieve a higher standard of performance, whether in terms of scholarship, teaching, or service, can be found in participant 7's response regarding persistence in the face of setbacks and how it affects faculty professional development:

I think that one thing that I appreciate about our team at my institution is that we have established a work environment where we support one another and we're able to be very honest. You know when that manuscript is denied or a proposal is rejected, and we cannot only just share those experiences with one another, but we help provide additional strategies. We try to walk the walk and talk the talk in terms of learning from criticism or setbacks that you have.

This example demonstrates how honesty and transparency can create an environment of support. Participant 7's reference to the members of her faculty as "our team" may seem like a small gesture but does lend a sense of comradery and support that not all programs portrayed during these interviews.

Other manifestations of this support can be seen through mentorship practices of some programs. Participant 14 shares the example of her institution's faculty mentorship program:

Our university does have a faculty mentor-mentee program for new faculty where there are... guidelines of how often they meet to talk about how to acclimate into a position in

higher education... And then, we utilize each other in the department. So, when we have a new faculty member on board, not only do I - as department chair - do mentoring, usually the new faculty member will have two or three faculty in their office... to help guide them through that process. The university also provides kind of a mentoring evaluation [process].

All in all, the support of the administrator who leads by example and provides constructive feedback in a positive way, combined with a transparent, team-based atmosphere, can best serve a faculty that meets the guidelines for accreditation through a growth mindset.

### **Flexibility**

The next theme that emerged was Flexibility. Subheadings explored that emerged through this theme included:

1. Faculty flexibility supports program growth.
2. The relationship between flexibility and collaboration.
3. Continued faculty learning as driven by mindset.
4. The relationship among flexibility, effort and resilience.

Participants were quick to make connections between growth mindset as a philosophy and the concepts of flexibility and resilience. Nearly all participants recognized flexibility as a desirable quality for a faculty member and noted their role in providing an example of flexibility in thought and in practice. Participants continued to provide both positive and critical views on the concept of flexibility; in addition, examples and anecdotes were provided to demonstrate how either flexibility or rigidity has impacted their faculty and/or program.

**Faculty flexibility supports program growth.** Participant 8 provided the following example for the importance of flexibility as a trait for faculty members:

Flexibility and a change attitude will certainly support student development... Being flexible in how you present information or how you interact with people, how you advise them, how you lead them in scholarship should help them grow and develop it [flexibility]. So, I kind of see [growth mindset] along a continuum...

He continued by reasoning that it is the job of a faculty member to teach flexibility in our students and to demonstrate this by example. A faculty member and her students each have personal mindset beliefs, and it is imperative that the faculty member demonstrate flexibility to in turn influence the student to be more open to change.

Participant 9 also addresses the need for flexibility among faculty members, though she describes it through a professional lens:

I tell faculty and students that flexibility is the key to being a successful Speech-Language Pathologist because we are working with humans. Things don't always go according to a rigid plan. So, I think being able to be flexible and do that graciously is beneficial for everyone, and certainly as a faculty supporting students... there always has to be flexibility.

**The relationship between flexibility and collaboration.** In addition to the concept that flexibility is an important skill for a CSD faculty member to espouse and the notion that flexibility can be developed over time, participants in this study provided examples that demonstrated an outcome for flexibility among colleagues: suggesting there may be a connection between flexibility and willingness toward collaboration. This relationship is best described by participant 15 in response to how embracing change and finding lessons in the success of others may help faculty meet institutional expectations. She stated:

If you had asked me this question in 1998, it would be a very different answer, but right now there is absolutely no other choice than to embrace change. Change is rapid; it's pervasive. It's driven by human perspectives, as well as technological occurrences within human perspectives... you can think about the whole idea of consumer demand for education [and] changes in the CAA standards and the accreditation demands. Obviously, the need to draw students to our university - we have competitors. So, the idea would be that we are working much more as a group than we used to. Our collaboration, our discussions... our program meetings - the goals and the direction that we take during meetings and what we hope to achieve as we plan, prepared, discuss, modify... The whole IPE push is to collaborate with others, so we are doing much more... There is a much more transdisciplinary perspective or interprofessional perspective on where students are interested in studying and what we are encouraging them to study when we do make suggestions or modifications to what they might have suggested on their own. We're doing an awful lot to listen to our own voices and other peoples' voices and to acknowledge that our profession cannot be singular... We have to know what other professions do and we have to articulate with them.

Participant 8's initial comments were retrospective and hint at the way needed change has driven her department closer together in terms of internal collaboration, while pushing them outside of their comfort zone toward external, transdisciplinary collaboration.

*A fundamental principle of a successful department should be openness to change.* A notion that was discussed by one contributor was the idea that embracing change (i.e. flexibility) should be a tenet of a program or department, not only a valuable belief in individual faculty members. Participant 2 stated:

One of the foundational principles that we put together when we founded this department – I’m the founding chair... was that nothing’s engraved in stone here... we look for opportunities, not change for change’s sake, but for how it will impact students, faculty, staff, the institution as well. We do take a broad view of [change]...

His broad-scope openness to change and betterment of his program has contributed to its success over the years. Participant 2 has served his program as chair for many years and potentially has maintained this position because of his flexibility.

Participant 6 also acknowledged that a willingness to embrace change is an important component to leading a successful program but notes that individual beliefs vary: “different people are really different in their acceptance of change... the early adopters and the late adopters, and I think we have a continuum.” As individual variance can shift the ideology of a program, the administrator plays a crucial role in maintaining a sense of balance. The notion of flexibility through this growth mindset principle of willingness to embrace change if upheld over time, may lead to enhanced collaboration.

**Continued faculty learning as driven by mindset.** Another method of flexibility enhancing collaboration may be through continued learning (i.e., continued professional development) as it often is spurred by being exposed to others’ successes. This subtheme aligns with Dweck’s growth mindset principle that belief in malleable intelligence allows us to find lessons in the success of others. Examples of this can be seen in excerpts from participants 3 and 12. Participant 3 states:

I think that a faculty member who sees other changes going on will look into what’s the evidence or what are people writing about. I believe what you’re talking about right



now... has well inclined me to look up her [Dweck] work and see what she really has to say, so it inspires faculty members to keep developing.

Participant 12 shares this belief in her response:

Looking at two faculty who are going up for promotion... this year, they're very eager to... know what's expected of me. I need to see what others have done in meeting those expectations... I put my own dossier out there... on Google Drive for people. [This] also happens when we hire new faculty. We are hiring them with an area of expertise that we want to nurture and see them develop.

Both participants provide examples for how the work of others may influence continued learning and development either personally or as an extension of support to faculty.

In these examples, finding lessons in the success of others occurred through a top-down approach where someone with experience or expertise influenced someone else. Notably, participants 5 and 11 responded to this probe regarding how students have influenced them to learn more and continue their own development. Participant 5 states: "I learn as much from the students sometimes as they learn from us." This notion was presented again in a response from participant 11 –

I think that when I talk with my colleagues that they professionally are pushed by students and it's through students' exploration and willingness to pursue new ideas that it sometimes takes a faculty member in a new direction. So, just speaking for myself, when I have students doing research in my lab, they may come in with an idea for something that's not something I would have thought of before. For example, ... I have a doctoral student who is very interested in adaptive recreation – not something that I personally have experience with, but I am interested in opportunities for people with disabilities to

engage with the community. This was sort of a channel for that. It was such a great way for us both to learn about this idea and... my own research got pushed forward through it as well as his ideas got translated into something we could really research... I think students and research... push faculty along.

The notion of learning from the success of others in a broad sense may give new perspective to the idea of finding lessons in the success of others from the vantage point of higher education faculty. These lessons may indeed come from someone with a degree of experience or expertise, but they just as well can come from the influence of curiosity and learning alongside someone whether a colleague or student.

*Embracing change may contribute to a desire for continued learning.* An additional example related to the concept of mindset as a driving force that spurs continued faculty learning is a willingness to embrace change that is practiced through flexibility. Participant 2 stated:

The whole premise of faculty development is that you keep growing. So, that presumes that there is a growth mindset... people can take advantage of professional development and improve what they do, how they do it, what they know... apply that to teaching, to student development, to creative ideas for new student engagement - whether scholarship or community-engaged learning... this is just part and parcel of what I think we try to do and try to encourage exactly.

He went on to explain that this desire to seek out professional development and engage in continued learning should be a natural extension for all who teach.

Participant 4 provided an example when she discussed the need for a seasoned professor to take on a new course adoption: "they can embrace change... when they see the greater good is served... and no one else can do it." She also reflected "it's not just faculty willingness to

embrace change, because people... won't embrace change unless there's something in it for them." This belief indicates that a motivator, whether intrinsic or extrinsic, may be necessary for someone to expose themselves to change and continued learning in the first place.

**The relationship among flexibility, effort and resilience.** An important final consideration mentioned by some participants was that, with appropriate effort and resilience, flexibility can be developed. This idea echoes growth mindset principles of effort as the path to mastery and persistence in the face of setbacks (Dweck, 2006). Following the more recent pushes in higher education and accrediting bodies, participant 12 and her faculty decided to focus their efforts in new ways when they came to realize they needed to do more for their students in terms of providing a well-rounded education experience:

Interprofessional education is a big thing right now, and so I'm asking all of the faculty 'Are our students adequately representing their interprofessional experiences in externship? Do we need to find measures of how that's working?'... reading what students write and monitoring the literature and the accreditation standards that seem to be changing about every seven or eight years, that we are trying to stay ahead of the game or at least on top of the changes [to] have a well-rounded program.

She also notes that "In 10 years we've changed the curriculum: one, two, three, four times... well, always something is changing, but we've had four overhauls of curriculum in 10 years."

### **Outcome-oriented Practice**

The final theme that emerged relative to the applicability of growth mindset to issues of faculty development was outcome-oriented practice. Subheadings explored as components to this theme include:

1. Success often comes from the meshing of creativity and necessity.

2. Faculty mindset may influence student engagement and outcomes.

Despite only having two emergent subheadings, this theme was one of the most compelling identified. Participants demonstrated consistently through their responses the importance of using growth mindset in action; this is of particular interest since growth mindset philosophy is categorized as a goal-orientation theory of motivation (Ford, 1992). Terminology in their descriptions may vary, but synonymous words revealed an appreciation for goal mastery, persistence, and overall growth. Participants shared examples and anecdotes that demonstrate growth through practice. A few stories exhibited how some programs have evolved over time toward a mindset of growth from an organizational stance.

**Success often comes from the meshing of creativity and necessity.** Achievement of outcomes is often the measure of success in higher education programs – CSD programs are no exception. The information presented thus far has provided insight about personal belief systems, the influence of the leader, and the importance of flexibility in creating a successful program that achieves the appropriate standards for accreditation. Outcome measures are a natural extension of this discussion. The first subtheme identified regarding outcome-oriented practice and the potential application of growth mindset is success resulting when creativity and necessity collide. Participant 7 provided an example of how a creative idea from one of her colleagues is helping to solve an issue of student mindset:

I have a colleague that is exceptional in terms of his creative teaching skills... we try to provide some of our orientation to the new cohort [through] exercises where we required more divergent thinking skills. We had them do some learning activities throughout the day of orientation where there wasn't just one correct answer and you learned for the enjoyment of learning. We tried to bring to life how a graduate student should be less

focused on a grade or a GPA, but more focused on developing skills needed for lifelong learning... At the end of the day, we're not going to teach them everything they need to know about being a speech-language pathologist, but if we can teach them how to learn then that is mission accomplished.

Another example of creative problem-solving can be seen in participant 9's response to how belief in dynamic intelligence and a desire to learn contribute to her faculty's ability to meet institutional expectations. She explained that sometimes this means educating others in an intentional way and being an advocate for your program to the powers that be:

I think a lot of meeting the expectations of the institution is in educating the people that are making the decisions about our program, because I don't think that they understand that... you should always advocate... and part of that advocacy is educating and understanding that administration should be able to make changes in their mindset if they have appropriate information.

Participants 7 and 9 demonstrated that whether the issue is related to student outcomes or institutional outcomes, sometimes we must think outside of the box to reach an intended goal.

*Strategic plans can set the tone for success.* Interestingly, participant 2 had a very specific response related to the concept of outcome-oriented practice.

The school has an expectation of high outcomes for our students... the same kind of things the CAA requires in terms of completion time, completion rate, pass rates... As we're using these principles to believe in supporting students, we're at the end of the day supporting institutional goals of education.

This view is shared by participant 3 as she responded: “the institution always has a strategic plan, so a growth mindset is always thinking, ‘how can that next strategic plan help us improve... improve student outcomes, improve our research, whatever that may be?’”

These contributors and others recognize that viewing outcome planning as a mandate rather than an opportunity for positive assessment and potential growth would have negative consequences. Participant 7 stated this well through a similar response:

You can kind of see it in one of two ways. You can say that expectations that you have at the institution are troublesome, they’re burdensome, they’re oppressive. Or, they’re an opportunity to prove yourself as an educator, as a researcher. So, I think that a good example might be viewing promotion and tenure as torturous versus an opportunity to really engage in some honest self-reflection to make a plan each year to move toward a goal. It just makes the whole work of higher education more enjoyable seeing...those expectations because they are great and the expectations, I think, are intense for individual faculty members as well as the programmatic expectations you have. You know, you can say ‘oh, it’s horrible’ or you can say ‘it’s an opportunity to get better and to highlight what we do well.’

Participant 7 introduced an important, candid discussion with the quote above as she recognizes that it is easy to fall into the mindset that the work that goes into outcome measurement is time consuming and burdensome, but if your mindset leans toward seeing the merit in assessment, self-reflection, etc., these responsibilities can become an enjoyable part of one’s professional growth and contribute toward the betterment of a program.

**Faculty mindset may influence student engagement and outcomes.** The real proof of faculty success and efficacy can be seen through enhanced student engagement and outcomes.

Each of the standards highlighted (faculty support of student development, faculty contributions toward meeting institutional expectations, and faculty continued professional development) in this section and the themes that emerged from the interview data have perhaps led up to this final subtheme related to outcome-oriented practice. Teachers will likely agree that student success must be the center of decisions made, instructional practices, and program development initiatives. Several contributors spoke to the importance of student-centered practice and how this focus has helped their programs become more successful. Examples of this success can be seen in responses from participants where they discuss the positive impact remediation plans have had on their students' learning. Participant 6 stated:

Those three examples of feedback, coaching, and [not expecting] error free learning I think are really the philosophy of the faculty here... We give students a lot of second chances because we want them to be confident... If they don't do well on a particular assignment, they may get an opportunity to do it again, and then the grade is an average of the two... We remind them they have to do their best... [but] they don't have to be perfect.

Participants 7 and 8 echoed this as they discussed their program procedures for formative assessment as a method of coaching and remediating students' need for growth.

Participant 14 provided examples of the student-centered nature of their graduate program:

[We have] an open option of remediation... certainly I think it gets a message across that if you don't get it right the first time, there's an opportunity to continue to learn. I think that the open-door policy that our faculty have - and we do have contractual office hours - but I don't know of a single faculty member here that doesn't see students beyond...

way beyond those office hours... Clinical supervisors are excellent mentors to our students and giving them that time to grow... they see these students formally on a weekly basis to go over what they are doing in clinic, but our supervisors are constantly providing feedback on a daily basis to our graduate students.

Participant 14 provided other examples of student-centered practice that have led to improved outcomes and enhanced student engagement. Her examples demonstrated practice suggestions that may provide an avenue for future discussion regarding growth mindset in practice.

Importantly, there may be some limitations to provision of student-centered education. An alternate view of this can be seen through a response from participant 2 where he stated:

I'm not 100% buying-in... that there isn't innate talent. I think there is a fundamental level of talent intelligence that is fixed and then we can expand the effect of that. Maybe it isn't fixed, but that can be expanded through experiential learning and so forth... So there is [growth], but I also believe very firmly there are people who have limitations... can do all you want... you dance on the head of a pin, and you aren't going to make them better... If I didn't believe that, I wouldn't ever be able to fail a student or fire a faculty member, right?

There were a few instances where some participants discussed barriers to implementing growth mindset principles into their faculty development goals as participant 2 above when he was discussing a willingness to embrace change and find lessons in the success of others for faculty working to improve student development. Notably, the notion of strengths and weaknesses in an individual in relation to growth mindset is a common misconception; Dweck recognizes in her work that different individuals have their own sets of strengths that may account for a perceived talent over others for a given skill set (2006). All in all, the discussions that occurred surrounding



application of growth mindset principles (Dweck, 2006) as they relate to Standard 2.0 Faculty of the Standards for Accreditation (CAA, 2017) were fruitful in uncovering themes of ideology and practice.

### **Chapter Summary**

This chapter provided meaningful information regarding how CSD programs currently view concepts of growth in terms of faculty topics. Research question one asked, ‘To what extent is it feasible to use growth mindset principles in faculty development initiatives for Speech-Language Pathology programs?’ The themes identified above and exploration of subthemes that emerged demonstrated that CSD graduate programs often do subscribe to many growth mindset principles through their beliefs and practices, including willingness to embrace change, belief that effort is the path to mastery, personal desire to learn, and openness to constructive feedback. Areas for future growth identified may include taking more initiative to learn from the success of others and reflection on a belief-practice gap in terms of accepting incremental intelligence theory. This information provided insight regarding ways faculty training may be molded to fit specific needs that more completely align with the CAA Standards for Accreditation. Discussion and implications to follow in chapter seven.

## **CHAPTER 5**

### **CURRICULUM**

Chapter five will focus on Standard 3.0B Curriculum for Speech-Language Pathology of the Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language Pathology (CAA, 2017). This chapter is organized similarly to chapter 4 where themes that emerged in the area of curriculum are presented; information regarding the administrator's growth mindset beliefs from an organizational perspective, present evidence of current growth mindset practices, and present information on areas where use of a growth mindset framework may be used in the future regarding curricular development are also discussed.

#### **Thematic Analysis**

Interview questions were again divided into specific growth mindset categories based on Dweck's principles; these included 1) embracing change and finding lessons in others' success; 2) persistence in the face of setbacks and an ability to learn from criticism; and 3) belief in dynamic intelligence, desire to learn, and effort as the path to mastery (Dweck, 1999, 2006). Participant responses were analyzed and coded as per guidelines for phenomenological study (Creswell, 2014; van Manen, 1990) and the following themes emerged for Standard 3.0B as it relates to curriculum: lessons from the successes (and failures) of others, influence of the leader, student-centered decision-making, and flexibility in curricular development.

As with chapter four, there were minor adjustments needed during the interview process to enhance participant understanding and flow of the interview conversation. Most participants responded to interview parts B.a. (Appendix C) regarding how growth mindset principles contribute to curricular development and B.b. (Appendix C) how growth mindset principles assist in program planning, organization, and review of curricular practices in tandem rather than

as separate sets. This minor adjustment was allowable to maintain natural flow of the interview process; it was deemed that the adjustment did not compromise the integrity of the responses received.

Table 8 offers a quick-reference for thematic breakdown of curriculum issues when explored through the lens of growth mindset:

Table 8

*Growth Mindset and CSD Curriculum – Themes*

Lessons from the successes (and failures) of others	Influence of the Leader	Student-centered Decision-making	Flexibility in Curricular Development
Reflection on the successes and failures of others can initiate positive change	Role of a leader in setting the tone for curricular change	The relationship between curriculum and student engagement	Flexible curricular development allows for modernization
Competence curriculum and professionalism instruction as parts of a whole	Role of a leader in determining curricular implementation  Curricular feedback and growth opportunities	The benefit of student-centered decision-making	Curricular development should include intentional diversity initiatives

**Lessons from the Successes (and Failures) of Others**

The first theme to be explored regarding Speech-Language Pathology curriculum standards is lessons from the successes (and failures) of others. Subheadings explored as crucial to this theme included:

1. Reflection on the successes and failures of others can initiate positive change
2. Competence curriculum and professionalism instruction as parts of a whole

Each of these subheadings reflected the coded theme of learning from others’ successes and failures. Importantly, learning from others’ success is a core principle of the growth mindset

paradigm. As the theme suggests, both successes and failures were discussed as important to the ever-evolving decisions made surrounding curricular design.

**Reflecting on the successes and failures of others can initiate positive change.**

Lessons from the successes and failures of others were discussed by contributors in a number of ways. The first to be explored revealed that reflection on these successes and failures can ignite positive change related to curriculum. Comments were made by all contributors regarding the importance of reflecting on past experiences, and this was clearly evident when participant 9 shared:

We have talked about curricular changes here, and one of the first things that we did when we talked about that was to look at the curriculum of other programs... to see what they're doing... I think always reaching out and talking about what works and what doesn't work and being open to new ideas is very important.

Participant 13 also mentioned the importance of being open to learning from others when it comes to developing a successful curriculum strategy:

When we're reviewing our curriculum again we'll measure ourselves against ourselves but also looking at how we compare with others, and we use a comparison of where we started to where we ended up, as well as how we compare to others, to plan, to improve our curriculum and shape organizational patterns as need be to help us get to that next goal. You know we're always setting new goals. We try to develop those goals by looking at ourselves but also looking at what others are doing.

Information from both participants 9 and 13 explicitly stated that turning to other curricular models as examples to guide their own models is a go-to strategy for their programs.

As the most seasoned administrator in this study, participant 2 noted the following in terms of curricular changes that need to be made:

This is something that... all programs... [are] working on to make sure we're doing better now that our accreditation standards have added professional practice competencies.... We're all looking to others to see how other people are skinning the cat. Sometimes it's better to not be the first one. You can learn from others' successes and failures.

In this response, participant 2 mentioned an interesting point that is not explicitly mentioned in Dweck's basic framework: we do not only learn from the success of others but also learn from the failures. Sometimes learning what not to do can be meaningful in terms of learning and growing.

Other participants openly state that their role and the experience gained has helped shape the way they learn from others' success.

Personally, I learn from my site visits. That's one reason why I'm doing those to learn about the success of other programs, so that indirectly, I can consider those options for my program. Not that there is always an application, because contexts are really different, but certainly there are some very positive examples among the accredited programs... We can also look at other departments in our college in what has been successful for them (participant 10).

Participant 4 provided an example for how she reflects on the successes of others for the betterment of her program:

Recently... another program had an issue with an SLP student who was very religious saying that they didn't want to work with a voice client who is transgender because it was

against their religion... An ASHA program talked about exactly the same problem a... student who refused to work with a transgender client because of their beliefs. So, that led to them developing this form which essentially all students had to read and sign off on... it said these patients are my responsibility when they're assigned and it's not my right to refuse to serve them based on... my personal beliefs. We're going to start using this.

The information provided by all of the contributors demonstrates the importance of reflection on both the successes and failures of others when it comes to making curricular and programmatic decisions at their home institutions.

**Competence curriculum and professionalism instruction are parts of a whole.** A few contributors mentioned the importance of including professionalism training into curricular development. One of these was participant 7 where she shared that professionalism is a common discussion among her faculty. She explained that often students may exhibit a lack of transference for “soft skills” where the faculty have to figure out how to approach that in their teaching. She recognized “It may not be a curricular change, but might just be an adjustment to pedagogy that we’re using.”

Another example related to learning from the successes and failures of others is the importance of recognizing criticism as a natural part of the learning process as it relates to professionalism instruction. This crucial skill was simply explained by participant 1 when she stated: “If they don’t learn from criticism they [students] probably aren’t going to meet them [standards]... I can’t imagine anybody going through without any constructive criticism.” This insight reminds us that part of curricular development initiatives must include intentional professionalism instruction to ensure students are developing metacognitive wherewithal to

reflect on constructive criticism and learn through lessons, advice, or shared experiences that may occur. Whether through instructional practices or curricular design, demonstrating how to learn from the successes and failures of others is an important compliment to standard curricular content.

### **Influence of the Leader**

The second theme that emerged regarding curriculum is influence of the leader; importantly, this is the second time this theme has appeared as it was previously explored during presentation of themes from Standard 2.0 Faculty. Subheadings explored as foundational to the theme of leader influence on curricular decision-making include:

1. Role of a leader in setting the tone for curricular change
2. Role of a leader in determining curricular implementation
3. Curricular feedback and growth opportunities

Overall, participants owned their role as a leader in setting the tone for necessary curricular change and evolution. Both facilitators and barriers to having a growth mindset toward curricular design were discussed.

**Role of a leader in setting the tone for curricular change.** Leaders interviewed seemed to realize that their awareness of departmental function needed to be multifaceted. There is a need for leaders to be self-reflective, open to change, and in tune with the variance of mindset patterns held by their faculty. As seen earlier with social bias norms for those working in the teaching profession, participant 4 verbalized awareness for the importance in embracing change, while staying attuned to a variance of openness within her faculty. She chose to provide an example to highlight how this recently was done in her program with the need to change the structure for its comprehensive examination.

We sort of took a very structured, very slow pathway of introducing the faculty to the fact that [first] we're gonna look at this and the next time we're gonna look at this and let's take a look and see what makes sense... As we've got faculty excited about it, they came on board... At the end of the process, not only did they contribute and make it a really great process, but they had ownership of it... We had to structure it in such a way and be patient enough that the change would come.

This response is a clear example of the influence of the leader and how her decision to pace a new curricular change led to enhanced collaboration with her faculty.

Another example for how leadership can guide decision-making is through achieving the high expectations of continued accreditation. These expectations are discussed by participant 14 where she stated her program is often a leader on campus because they have a high regard for accreditation and this is often the driving force behind high internal (program level) expectations. "Oftentimes at our university because we're an accredited program, we're more one of the leaders. Other programs look to us as to how we do things." This leadership role has led to additional opportunities for her program where they are leaders in new collaborative and interdisciplinary efforts promoted by their new Dean.

Participant 8 provided yet another dimension to reflecting on the role of the leader in the midst of curricular change. He noted that it is sometimes difficult for faculty to not take a disruption in their course design personally:

That's the role of the department chair [and] program director to try to negotiate those things in a way where... people can take criticism and... see change and trial and error in a positive way. Rather, than just seeing it as some kind of punitive thing for them.



Each of these examples gives credence to the concept of leaders as influencers in their program. Creating an environment of faculty investment, priming faculty for roles of importance at the institutional level, and generating excitement about change may promote enhanced faculty engagement that leaders are in a prime position to effect.

***Mentorship and leading by example are crucial.*** An additional consideration regarding the role of the leader in setting the tone for curricular change involves the concept of a leader as a faculty mentor and the notion that leading by example is effective. Participant 2 shared information that highlighted some of the barriers administrators must weigh before guiding curricular change:

We've played with models that include literacy education into our curriculum; [for example], we'll take a course and integrate it with a different course. So, looking to others to see what's the best way of doing that given that there's only a finite amount of time... how do you find time to do everything?

Instruction must guide students in meeting standards while also achieving competence in primary domains of care and service provision. Participant 2's reflection surmises a leader may be more effective if she handles these constraints and practicalities with openness and innovation, rather than as restrictive or inconvenient. Important growth mindset notions that he discussed included openness to change and learning from the success of others. A leader's willingness to practice these beliefs may lead to a faculty who is more willing to do the same.

**Role of a leader in determining curricular implementation.** Participant 3 provided an example for why the leader needs to be mindful of instructor-course fit beyond consideration of

expertise. When asked about the relationship between embracing success and finding lessons in the success of others in insuring professional practice competencies are met she explained:

We have this writing course, and one faculty member took it upon herself to expand it in some really positive, innovative ways... The course is a different course than it used to be when a person before her used to teach [it]... The curriculum has evolved given success of certain faculty members.

This example demonstrates how not only curriculum, but instructional design may promote attainment of professional practice competencies.

Participant 3 also alluded to the usefulness of having a young faculty during times of curricular decision-making: “We have an annual program planning day... and sometimes things happen that I didn’t even expect to happen. We’ve got a group of young faculty right now that truly do embrace change so things end up unexpected frankly.” This comment and others like it point to a potential benefit of having younger faculty members; notably, this idea resonates with Horn and Cattell’s (1966) notion of crystallized intelligence where they theorize that intelligence malleability reduces with age.

Importantly, leadership literature notes that leadership skills often develop with age due to focused-experience (Day, 2012), and with greater than 70% of the participants being over the age of 56, this does demonstrate the importance of experience in shaping effective leaders. For example, participant 1 has served in her role as chair for 8 years and participant 2 has served in his role as chair for 22 years. Leaders often design the evolution of their faculty make-up to include a variety of age and experience to offer both innovation and know-how.

**Curricular feedback and growth opportunities.** The influence of a leader to ensure curricular standards are being met needs to be faced with an open mind. In light of a recent CAA site visit and feedback that was offered during that time, participant 7 stated:

We went through curricular review last year. We had a site visit with the CAA team. So, we're trying to ensure that we were meeting all of the ASHA standards for learning. We did some mapping which has set the ball in motion for curricular change... Curricular change takes an act of congress to get an idea through all of the committees.

Participant 7 was then asked if the entire program faculty was open and willing to change as a result of this critique, she stated: "I think it's a mix... it's a mix." This response resonated with the notion that each faculty member brings their own beliefs and values to the stage when it comes to perception of feedback.

Another example for feedback as providing an opportunity for growth can be seen in participant 14's response when asked to respond on ways to embrace change when it comes to program planning initiatives:

We are pretty much now yearly looking at our curriculum against the CAA and CFCC standards because that's just part of that annual report or a site visit. So, we've just gotten into the habit of looking at our curriculum, our course syllabi. Are they meeting our learning outcomes for certification for our student? Ensuring that we're covering all of those learning outcomes. We have typically a departmental retreat once a year where we focus on curriculum, and we talk about who's going to be responsible for tweaking maybe something in a course. We've started that discussion for the new 2020 standards... last year... Have we made all those changes that we want to make to ensure we meet those 2020 standards?

A third example in which feedback provided an opportunity for growth was evident in the response given by participant 3 as she described feedback given by the CAA regarding her program:

Having gone through accreditation just a year ago, we certainly had a critique that has guided us to look really carefully at our outcomes where we're tracking competencies. So, if I would say the setback is that we were critiqued for this and that, therefore, we really sat down and walked through our whole curriculum to lay out an updated curriculum.

These responses from participants 7, 14, and 3 demonstrate the importance of the role of a leader in insuring feedback is received positively by faculty.

***Feedback should come from a variety of stakeholders.*** The information above was addressed by additional participants who discussed the importance of faculty support and potential solutions to offering feedback. One way feedback may be more effective is by receiving information from a variety of stakeholders. Participant 10 believed that feedback about what is working and what needs revision should also come from students; she stated:

Both the grad and undergraduate [faculty] do conduct surveys of students to find out how their curriculum has benefitted them or hindered them... And for the grad program students, we'll suggest... elective courses that they feel would be beneficial to them, and we then attempt to implement those.

A similar procedure, that includes review of alumni perceptions, was also discussed by participant 14:

We also utilize... our current student and alumni questionnaires to get a sense [of] once our students are out there in the real world... that they have had the knowledge base and skills to at least have that entry level skill to practice with confidence.

Participant 15 reported a similar process implemented in her program:

At the grad level, we have formal feedback forums obviously as required by CAA for on campus and off campus supervisors. We close that feedback loop. We are taking the student comments back to those individuals. So basically, to help the students professional practice competencies and foundations. We're incorporating what they say and if they really don't feel that they have progressed or learned or achieved competencies, and they can help identify why then we would be able to incorporate that.

Importantly, participant 9 noted the importance of weighing feedback for value and practicality: "I think that most of our curricular changes come from complaints, whether it's complaints from faculty, administration, or students because we change things when things don't work." She recognizes that opinions of efficacy toward curriculum can come from individual perceptions and adds that "delayed feedback" is often more productive in identifying areas that may need to change:

I think that it's asking for immediate feedback, and then asking for delayed feedback. I do this with our internships... we ask about feedback on the actual site itself, and then on the supervisor. And I tell students, 'I don't want to necessarily hear what your feedback is right away. I want you to take some time and think on it.'

Participant 9 stated use of feedback helps when recognizing the validity in the complaint: "I think it's being able though to understand is this a valid or not. So, we always have to be critical consumers. So not all complaints are valid complaints either."

The importance of feedback leading to growth and a need to look at it from a practical standpoint was discussed by participants 11, 1, and 4 as well. Participant 11 takes a similar approach in how she weighs criticism received about curricular models:

I think we do try to wait until people have kind of calmed down before we might make large scale changes relative to something that's broader. But I think it's always important to listen, when you have the same kinds of things that continually come up then that's different...then that's time to evaluation, but contextualizing it in the case of a single student is something that has to be done.

Weighing feedback, source, and context is echoed in a response from participant 1:

We get feedback on the program and... curriculum. We get it from students, we get this from offsite people [supervisors], so we take that and evaluate it and look at the merit of it. That doesn't mean you have to act on everything, but you have to critically evaluate it.

Participant 4 took the notion of reflection on *setbacks* and reframed it as feedback:

I wouldn't call feedback from alumni a setback – but they have come back and said we want you to have more adult experience on campus. We want an autism class. We want the research class to be smaller. I don't know that they're really setbacks, they are more feedback.

Each of these contributors seemed to recognize their role in setting the tone for how feedback is received, as well as managing the prioritization of potential curricular change based on the validity and practicality of suggestions made.

### **Student-centered Decision-making**

The next theme that emerged under the standard of Speech-Language Pathology curriculum was student-centered decision-making. Subheadings explored throughout this theme include:

1. The relationship between curriculum and student engagement
2. The benefit of student-centered decision-making

Though only discussed by a few participants, those who contributed exhibited enthusiasm and high interest value toward student-centered practices. Naturally, the philosophy behind student-centric practices does align with growth mindset principles as the study of intelligence malleability and factors of motivation are inherent in educational practice.

**The relationship between curriculum and student engagement.** The first notion of student-centered decision-making explored relates to guiding students toward engagement and helping them to recognize the importance of persistence. Participant 11 discussed this need in her response to the prompt ‘how may persistence in the face of setbacks and an ability to learn from criticism help ensure professional practice competencies are met?’ She discussed the importance of recognizing students may need modification to achieve particular competencies rather than attainment of competence following a prescribed method. Faculty “make plans with the student for remediation and I think those plans are meant to be empowering more than they are punitive.” She continued to discuss the team approach faculty in her program use:

It's a sense of well how are we going to get you to this area of competency with some of it put on the student as well. These are the things we are observing; how are we going to get you there? I think that that kind of approach... is a positive one ultimately.

Participant 1 provided an example of how her institution has worked to improve student engagement and promote a desire to learn: inclusion of elective seminars. She stated that these

seminars, as well as independent study opportunities, “allow them to grow in areas and kind of push them in areas that interest them.” Similarly, participant 2 mentioned the evolution of the senior sequence capstone course in his program:

We’ve redesigned [the capstone course] several times over the past 22 years to better help students grow and synthesize their information and demonstrate their ability to synthesize information across the curriculum, so we’re constantly looking at that and people who’ve taught the course, myself included in the past, look to our colleagues for guidance... So, we take advantage of everybody’s input to make changes to deliver an effective course.

Each of these examples provided information on the importance of student engagement to help students have more valuable learning experiences.

***Research should begin with undergraduates to enhance engagement.*** Some contributors provided responses that suggest they believe one important way to foster a growth mindset in students is by infusing research into the curriculum from the very beginning. Participant 1 reported that a positive curricular addition to her program was the development of a community of research practice where students and faculty meet to discuss research topics on a weekly basis. In addition, the senior capstone course in this program has been built around the tenet of increasing research literacy. Participant 1 believes these opportunities provide students “positive feedback, but challenges them”; she does admit though that “it’s hard to infuse [research] in every class.”

Participant 14 reported that a similar initiative at her institution has caused her faculty to find innovative ways to infuse research into undergraduate curriculum:



In the past we've always had student faculty involvement in research at the graduate level. The university, in the spring, always does have both undergraduate and graduate level research conferences, but this year is the first year where our department has started an actual research journal student organization. Each month students are welcome to join or not join since it's a student organization, but I'm always amazed at how full that classroom looks on the day that they get together. A faculty member takes a month, so it gets throughout the whole department, and we choose a journal article that we're excited about or we think is a seminal article that students really this is just so groundbreaking research in the discipline. Students have a month to read it, answer some questions, and then once a month the faculty member meets with these students and they talk about the research. And so because it goes across all faculty in our department, the students are getting exposure to the scope of practice across discipline, because we all have our own interests.

***Curriculum must lead to student growth.*** Related to the goal of student engagement and implementation of undergraduate research initiatives, we must realize that strong curricular models ultimately result in student growth. Oftentimes, this means growth in a broad sense as discussed by participant 7:

I think... we do the students a disservice when we don't acknowledge that there are challenges they will encounter academically or clinically. Rather than glossing over it... embracing what may need to be changed for a student in terms of study habits or clinical interaction... I think that we've got to hit it head on and support students [by] helping them not only acquire content knowledge of disorders, but to also help them acquire aspects of professionalism and an ability to interact with others.

Infusion of professionalism instruction alongside traditional content instruction may be a preferred pattern for content delivery to create a well-rounded student. Truly student-centric decisions may elicit successful implementation of broad-based education.

Another example for how student growth has been bolstered in some institutions is through increased inclusion of undergraduate students in the research process. Participant 2 describes how earlier student inclusion has helped with student engagement:

We've been working on increasing use of [research] practices in our curriculum and that's the broadest sense of that. We're also increasing our encouragement of students from undergraduate to graduate level of getting involved in research... This has been part of how we apply that to help students learn how to use research to be part of producing new research as well.

An instructional consideration that must be weighed before making a curricular decision is how the approaches used will work for the variety of students affected. This curricular need was addressed in part by Thompson and Couto (2016) in their article "Creating problem-based leadership learning across the curriculum," recognizing that students learn differently and require flexible opportunities to develop critical-thinking skills that can enhance their professional engagement long term. Participant 3 notes the importance of allowing for creativity in delivery within particular curricular models:

I just see that as guiding a creative approach to how you're training students to clinical training or academic training. It will lead you to incorporate a variety of approaches because not all students are going to respond to one same approach... but it also is going to be challenging."

She recognized that full inclusion may not be possible for each level of program planning; however, the challenge must be faced head-on from a student-centered point of view. Participant 7 said it this way:

I think it's almost like it's just a lens with which you look at your curriculum when you are determining if the sequence of your courses makes sense. I think that we.... well I don't know if I should say we.... while I think intelligence is dynamic, I think that it has to grow in knowledge and knowledge in our field has to be sequenced in a way that's supportive to students. So, I think that it can be changed. I think that has to be well thought out... thinking through where you get foundational fields versus more refined experiences. So I think it's kind of like a value or a way of thinking that you bring to that process of mapping out and determining how the curriculum should be delivered to the student.

Whether through innovative curricular design or through infusion of research into practical learning opportunities, administrators interviewed recognized the need for keeping the students at the center of our work and providing growth opportunities beyond coursework.

**The benefit of student-centered decision-making.** Another subtheme that emerged from consideration of student-centered decision-making was how students should be at the center of all curricular decisions. Participant 5 put it simply, “It’s a constant thing where we’re always looking at what’s for the students’ best interest.”

An example of identifying students as stakeholders can also be seen through a response given by participant 9 where she described her program’s approach to curricular decision-making:

I think that's how you can learn a lot about curriculum by talking to the students about their undergrad experiences and how well they feel prepared for the grad program based on their different undergrad experiences. I constantly tell our grad students that they're like my focus group. So, whenever I have questions I go to grad students and say, "What are your thoughts on this? Like what are your thoughts on if we change the sequence of courses, or what are your thoughts on if we change the content of course or added the content?" because they're the ones that really know. And then I also always encourage them to get back with me after they've graduated and entered that field because that's really important to know what they think of as being important when they're students is going to change when they're out in the field practicing too. So I think it's just that open line of communication with students from all different backgrounds.

Participant 15 shared this sentiment when she described how her program works to ensure students recognize the growth they have achieved during their time at this institution.

Well obviously, our courses evals... we take those very seriously, and we look at what students are saying. Sometimes we use... a student reflection or feedback survey at the end of a semester. Students can be a little different on those (than on course evaluations) because often they're not anonymous. We are we are looking at student feedback in a lot of different ways... whether that would be criticism or just feedback. We look at what students are saying about their experiences in courses and in clinic, and we are incorporating that.

Participant 15 noted how student values must be considered when it comes to curricular development because they have to keep up with the rigors of a program's expectations:

We have changed the sequence of some of the graduate courses... It has evolved over the years partly in response to students saying ‘this is just too much at one time’ or ‘too hard to do this and that together’ so that that is sort of like the most obvious or overt exam.

Importantly, there is only so much time in a week to provide education to our students alongside their other practicum obligations and weighing rigor and quality must go hand-in-hand with student-centric curricular practice.

### **Flexibility in Curricular Development**

A final theme that emerged related to the application of growth mindset principles to issues of curricular decision-making for Speech-Language Pathology programs was flexibility in curricular development. Subheadings explored include:

1. Flexible curricular development allows for modernization
2. Curricular development should include intentional diversity initiatives

Importantly, the idea of flexibility emerged in the previous chapter and will undoubtedly be seen in the next. Interestingly, the concept of inclusion of diversity initiatives is a curricular mandate by the CAA (2017) and will be explored as a highlighted point of discussion.

**Flexible curricular development allows for modernization.** The ability to be flexible with curricular development initiatives was a subtheme that many contributors discussed. For the most part, descriptions of flexibility or a willingness to embrace change for curriculum was discussed positively; however, participant 8 offered an honest view for why this is done:

I think you have to be flexible. We do all our stuff through a curriculum committee, but generally you ask about professional development and our curriculum is in a constant state of evolution. While we’re involved in our ongoing evaluative process – or several processes – some of those are external...So, as we learn of things or as ASHA shared

with us a new area of focus or practice, then we have to have a change attitude or you know, we won't be accredited. So, it's really one of those forced kind of things. If you think back, we're only 70-80 years old as a profession. So, we're still in some ways finding our niche and as scope of practice changes and evolves... we're always learning of new things. I think an openness to that willingness to embrace what other people have found to be successful or what we're told is in the best interest of our students is just going to work best for us.

Another example of the importance of flexibility with curricular design initiatives was provided by participant 6:

I think that we always need to keep that mindset that curriculum isn't static. We always need to be adjusting it and responding to it. We had to make some tweaks to our undergraduate courses for our career switchers for directions with the graduate college and so it's extra work... We chose a time frame... and everybody was like 'Okay we'll do this.' Persistence, keeping the long vision. [Remembering] why we are doing this made some of the difference.

The information provided by participants 8 and 6 was important in describing the need for constant flexibility for the purpose of curricular modernization. Participant 9 described her beliefs on the importance of flexibility to promote positive curricular change over time:

I think that goes back to the flexibility...that you know you're developing curriculum, you have to allow for some flexibility within your curriculum because you're going to have students that learn in different ways and at different paces... The ultimate goal should be that everybody reaches competency, but that doesn't have to be that everybody reaches competency at the same time. So, I think part of that with curriculum

development is working on what do you do to help a student achieve competency if they don't, so having those plans in place.

Other contributors, such as participant 12, provided specific examples of how the curriculum in her program has developed over time by re-conceptualization of existing courses. She described the evolution of a counseling course to include multicultural issues, initiatives to heighten student engagement with statistics, and work toward a heightened marriage of research and clinical education concepts. Broad-scale training may even mean intentional inclusion of technology competence into curriculum models. Participant 15 is a champion within her program of using technology in innovative ways to increase student engagement; she stated:

I think that we really just have to see that the strengths and the intelligences that people bring to their participation in courses and in clinic now can be different than they used to be. I for one am thrilled with it. And I think we really do have to see it.

*Openness and flexibility are essential to curricular planning initiatives.* Perhaps the most straight-forward description for what it means to be open to change was provided by participant 3: “You know, I just see it [growth mindset] as making people open... open to different types of practices that hopefully then will lead to better outcomes.”

Resistance to change is contradictory to the growth mindset philosophy, yet this does happen from time to time. Participant 5 admits that members of her department are generally flexible and open to change, though it is not uncommon to encounter rigidity.

I think everybody is really very open. I think it's hard sometimes for people not to want to own their courses and feel like they're being attacked if somebody is in there or not but I think again we would.... we create an open mind in terms of what is best for the students and the fact that the standards and the standards of change what are the competencies that

we need to be able to see students. And if you're not able to get that competency in there how are we going to be able to do that.”

Participant 8 discussed the importance of openness and flexibility as essential to the curricular development process:

All of our faculty have to bring... an attitude that's going to be flexible... they're going to be open to suggestions and criticism. They're going to be open to trial and error and failure and success as we talk about curriculum. That's kind of hard sometimes because you know I've been here twenty-seven years after this year and there are people that have been here and they taught the same courses and they've pursued the same kind of strategies with students in terms of instruction and as we are responsive to those external and internal forces that help us shape curriculum and other things. You know we have to be open to change and modify what we do. You know if that's an alternative method of delivery you know and like an online course or if it's changing from three hours to one hour smaller courses to get content in or if it's doing... somebody taking a course that they haven't taken before because that just makes more sense from the students. You know somebody has more expertise.

Participants thus far have discussed flexibility with curricular decision-making according to the willingness of faculty to change. Methods of adaptation were only addressed by participant 11:

I think the idea that everybody at your program is capable of achieving a level of competence is something that comes into it. And so your curriculum has gotta reflect the idea that everybody could possibly meet that (level of competence) ... We map all of our classes to different standards and there are even times you might say, ‘well OK they



didn't meet that particular standard within the context of this class yet they do have multiple opportunities to meet the standard which demonstrate their competency. So let's make sure the next instructor knows, this person needs some assistance there to do it.' So I think there is a curriculum mapping process we did with competencies that was helpful in a sense.

From a practicality standpoint, it is important to recognize the institutional restrictions within which curricular design must operate. These restrictions were best described by participant 14 in her response to ways belief in malleable intelligence may improve curricular decision-making:

Every year we're looking at our curriculum against the CFCC (Council for Clinical Certification in Audiology and Speech-Language Pathology) and the CAA standards, but we also are sensitive to our surveys from students when they're on their externships and then two years after they graduate they get surveyed also and their employers. So you know we look to see what the needs are of everything, and we make curriculum changes based on that. And then also kind of based on faculty availability. That's always been kind of the house of cards situation, where for example we would love to add a couple of new graduate level courses one pediatric dysphagia, expanding our dysphagia the curriculum, possibly one on autism, and then another one in early intervention. But currently, we don't have the faculty to handle all that change of curriculum.

**Curricular development should include intentional diversity initiatives.** Many contributors openly discussed ways inclusion of diversity topics in their curriculum has had a positive impact on their students' learning. Notably, this item fit into the theme of flexibility as infusion of diversity issues into a curriculum has changed considerably over time for most

participants' programs. Participant 2 reported that diversity instruction is intentionally infused throughout the curriculum at his institution and they have a required pre-professional course requirement designated specifically to diversity education – “you know, we want to keep changing, improving, and finding better ways of doing things.”

Participant 4 noted that sometimes changes in the diversity initiatives within their program are driven by failures. She shared a story of a particular student with a difference with which the members of the department and students had little familiarity. The student came to her to report micro-aggressions because of her difference, resulting in a new section on diversity in their cultural and disability competence class.

Diversity changes are also driven by external forces according to participant 8:

I became a speech pathologist in '81, and you know the diversity was a whole different thing then and it really wasn't we talked about, and so I think being open to change and opened to new directions, new initiatives, new focus, focuses from again any source be as accrediting bodies, be it state initiatives, be it the university initiatives, around enrollment or around other kinds of things that might be diversity related. You know some of those things we're kind of pressured into, you know, and so we're changing and evolving based on external pressures. But I think more recently in the last maybe 15 or 20 years it's been more internal... I think that there was some momentum that maybe was created initially through mandated stuff be it affirmative action, be it you know whatever just name ideals from 30, 40, 50 years ago and then I think they became a little more institutionalized and even maybe became adopted at personal levels. And then as those constructs kind of found their way into affecting everything you know in terms of employment and student enrollment and everything else.

Another contributor that believes in bringing diversity to the forefront and including it as a topic in curriculum was participant 14. She stated:

We actually have a specific course that deals with diversity and multicultural sensitivity in our graduate curriculum, but I think a lot of us also infuse that into our didactic coursework as well. Diversity is not as robust for first clinical assignments because we are in rural western [state omitted] where there isn't a lot of ethnic diversity. But you know there's certainly diversity in socioeconomic level. We get some diversity that other programs may not because we service the Amish population. Once they've had that experience at our university clinic, they do get a very robust exposure to diversity on their full time externship. So, they do a clinical rotation rather lengthy in the schools and then one in a medical setting. Oftentimes, those are in urban areas. And so, our students get that exposure to cultural diversity, ethnic diversity, socioeconomic diversity, gender diversity.

This response discussed the importance of infusing diversity not only across courses but also recognizing the importance of experiencing diversity through clinic placements.

Participant 15 provided insight regarding how her program balances value in diversity of their student body, with being intentional about enhancing exposure to a variety of situations throughout a students' studies.

We always respect and acknowledge the students' backgrounds and where they come from the communities and the groups that they function in... The populations in their communities that they will be serving but we also do try to place some graduate students across the... area with groups that they're not familiar with. So, we may take a student who's a little bit more on the rural edge and put her in in the inner city or take more inner

city students and ask her to go work with more of a more suburban district for her student teaching for example. So we do try to kind of stir up that pot a little bit when we can. So with that said in every course you know we're going through CAA accreditation. We have acknowledged how we are promoting diversity within those courses, and we interpret that broadly as lifespan diversity, and diversity in terms of populations, or the capabilities and needs of the individuals we are serving... It articulates to the duty to serve and that we know about the populations that we're working with. So, diversity is just not reading the diversity chapter in some textbooks. For us, it's basically every minute of every day.

*Diversity should be taught on a broad scope, as well as individually.* Other institutions report diversity curriculum as being a multifaceted initiative; notably, these institutions reportedly were in areas of higher population density. Participant 3 stated:

We have a very diverse student population, so I've got faculty who are taking that very seriously and wanting to provide opportunities. So, they've set up a graduate student/undergraduate student mentoring program to try to facilitate development of some of those undergrads who may need a little bit more guidance and direction... [Diversity] it's not with the curriculum, it's an extracurricular.

Participant 10 serves in another culturally diverse region and provided the following insight:

We do have a diversity committee in the department and there are diversity initiatives at our university. We recently had one faculty member, who actually received an appointment in the college as diversity officer... I think we're just attempting to learn more. I mean certainly we do acknowledge that the syllabi should reflect cultural competence in aspects of diversity and be sensitive to diverse populations.

Even still, she notes that their program can and should do more in terms of diversity acknowledgement and intentional immersion throughout curriculum.

A final notion of how diversity affects curriculum and the program as a whole can be seen in the makeup of the student body. Participant 13 serves as an administrator at a historically black institution; she believes that diversity is “innate” for their faculty and student body. She goes on to say she believes this is unique at her institution – “we’ve always had to tackle the diversity issues, and we always just kind of... just do it.”

An area of diversity that was noted by one contributor was the influence of diversity on faculty and how that affects solving diversity issues that may arise:

One change we had more recently was bringing on and expanding our American Sign Language offerings in our program, and we hired some faculty who are deaf. It was really an opportunity for us to all think about several things that I don't think we'd ever had discussions about. They were all really positive, I think, around deaf culture, around the relationship of audiology to people who are deaf, to more intense discussions around cochlear implants and young children. And where do we stand on that. And then, it's one thing to have that discussion in the absence of people who have a strong opposing viewpoint; it's another when that group's well represented in your faculty. I think it was... it was ultimately very positive for us in terms of a change in how we thought about what we did (participant 11).

Unfortunately, several contributors noted that diversity inclusion in the curriculum is still a topic that needs improved. Participant 1 stated: “Diversity is not highlighted, but rather accepted and respected... we don't probably think of at the forefront of the department planning radar.” This simple statement demonstrates that faculty by and large appreciate diversity

individually, but marked inclusion of diversity awareness and acceptance needs to be further infused into the curriculum at some institutions. Despite participant 3 noting the extracurricular diversity initiatives her program considers a strength, she acknowledges that they intend to do more directly with curricular initiatives in terms of diversity: “We are on our way toward... taking one class and molding it into a multicultural class, and that’s driven by the standards. There’s so much talk and we really haven’t done a good job of that.”

Participant 7 stated the culture of their program is similar to that of participants 1 and 3 in that their geographical region is not diverse and this lack of cultural variance influences diversity immersion in their program and curriculum.

There's a cultural sensitivity [here], and culturally responsive practices... we have identified this an area of improvement for our program... in preparing for this site visit we were thinking about how are we dealing with culture, because we're a small team, predominantly female, predominantly white, middle income. Like, we are not diverse ourselves.

A final consideration regarding immersion of diversity as a highlighted topic of curriculum was discussed by participant 6. She shared:

We’ve had a faculty member who had a negative experience with diversity and had a hard time really seeing past that lens in admissions... I think the whole faculty said we need a diverse workforce for Speech-Language Pathology. How do we acknowledge her negative experience and also acknowledge we need a more diverse work force? I feel successful that her issues were being heard – that we are not forcing something on her life... after the end of that admission cycle... the group came back together, looked at the admissions rubric, and did some editing that seemed to make everybody comfortable.

Though not specifically related to curriculum, this situation stresses ways implicit bias held by individual faculty members may impact how issues of diversity are handled within a department.

### **Chapter Summary**

The data reported in this chapter characterized Standard 3.0B Curriculum in Speech-Language Pathology (CAA, 2017) as an area of focused growth for many of the programs represented. To recap, research question two addressed the extent to which growth mindset principles may be applied to curricular development initiatives in CSD graduate programs. The themes identified in Table 8 and through the data report included: lessons from the successes (and failures) of others, influence of the leader, student-centered decision-making, and flexibility in curricular development. Exploration of these themes and the subthemes that emerged suggest that growth mindset principles practiced through curricular initiatives commonly include openness to learning from the successes (and failures) of others, willingness to embrace change, and belief in the desire to learn (and teach). Areas for future growth identified may include identifying practices that align with the belief that effort is the path to mastery – in light of a sometimes rigid grading structure. As in chapter four, this information provided insight about ways our curricular design efforts can benefit from student-centric decision-making. Chapter seven will include exploration of future research considerations that may parallel our beliefs more readily with practices that promote adherence to the standards for curriculum.

## **CHAPTER 6**

### **STUDENTS**

Chapter six will focus on Standard 4.0 Students of the Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language Pathology (CAA, 2017). This chapter continues the organizational structure of chapters four and five by presenting the themes that emerged and provides information on the administrator's growth mindset beliefs from an organizational perspective, presents evidence of current growth mindset practices, and presents information on areas where use of a growth mindset framework may be used in the future regarding student needs.

#### **Thematic Analysis**

For consistency, interview questions were again divided into specific growth mindset categories based on Dweck's principles; these included 1) embracing change and finding lessons in others' success; 2) persistence in the face of setbacks and an ability to learn from criticism; and 3) belief in dynamic intelligence, desire to learn, and effort as the path to mastery (Dweck, 1999, 2006). Participant responses were analyzed and coded as per guidelines for phenomenological study (Creswell, 2014; van Manen, 1990) and the following themes emerged for Standard 4.0 as it relates to students: frequent broad-scale assessment should occur, faculty openness to accommodation, intervention planning models, and advising and mentorship.

During discussion of Standard 4.0 Students, some participants found separation of their responses regarding section C.a. (Appendix C) accommodations and recommendations for students and section C.b. (Appendix C) intervention needs challenging and chose to discuss them in tandem. A similar issue occurred with Standard 3.0b as previously mentioned. Again, this flexibility was deemed appropriate due to the nature of an interview and the need to maintain a



natural question-response flow. It was unlikely that discussion of these items from a holistic perspective altered the integrity of the responses.

Table 9 offers a quick-reference for thematic breakdown of student issues when explored through the lens of growth mindset:

Table 9

*Growth Mindset and CSD Students - Themes*

Frequent Broad-scale Assessment	Faculty Openness to Accommodation	Intervention Planning Models	Advising and Mentorship
Students should be monitored regularly	Willingness to implement accommodations	Planning for intervention should be hierarchical, transparent and fair	Open communication and mentorship may benefit the student-faculty relationship
Documentation is essential to keep faculty and students accountable for their roles	Normalizing accommodations may help to alleviate the stigma	Faculty acceptance of intervention models has evolved over time	A humanistic approach to advising is optimal
Regular advising and an open-door policy are optimal	The relationship between mindset beliefs and accommodation practice	Interventions should be individualized	Advising may be an optimal time to guide a student in shifting her mindset
	Faculty flexibility may help with success of accommodation	Interventions should maintain high quality standards	

**Frequent Broad-scale Assessment**

The information gathered during these interviews continued to be valuable throughout each standard and each set of growth mindset principles explored. Regarding student issues and the need for frequent broad-scale assessment, the following sub-themes were identified:

1. Students should be monitored regularly
2. Documentation is essential to keep faculty and students accountable for their roles
3. Regular advising and an open-door policy are optimal

Each theme was discussed by multiple contributors providing examples that describe both facilitators and barriers to working with students and the benefits of supplying students with access to their advising documentation.

**Students should be monitored regularly.** Pertinent to the concept of the need for frequent assessment practices was the general idea that students should be monitored regularly. Most contributors discussed the necessity to have regular advising meetings that included open discussions with students about the progress they are making, as well as identify strategies for improving areas in need of growth. One example of the need for this practice was discussed by participant 13 where she discussed adhering to external mandates for regular advising, but recognizes the importance nonetheless:

Well, we advise regularly because we have to. Once a semester we're advising and after [the] advising period, we'll share what challenges ... students have brought we're not so sure how to respond to. And so, we look for success among ourselves, among each other and try and accommodate these needs ... We have one on one meetings with every student, every semester and so after we review their progress, they have a good 15-20 minutes to talk about whatever issues that they may be experiencing that we're not aware of because they always have our emails, and they can come talk to us on office hours if the advising hour is not enough for them. So, I'm just thinking we're open to hearing our students' point of view so that we can use that point of view to shape our view of what's going on in the department.

Importantly, participant 13's response highlighted the importance of regular advising sessions, while also recognizing that student morale has a direct effect on the department as a whole. This sentiment was also shared by participant 12 as she discussed a recent advising change made in her program:

So not only [do students have] an academic advisor but a clinical advisor and they work in tandem with the student. So that that's been a big plus. We have advising benchmarks that we have to meet, and I mentioned in their opening meeting yesterday that by February 6, everybody should... go into the student's files and make sure that their student is enrolled in the right number of credits and is on target for the semester. We don't want to let things slip up and then to be sure and meet with your students when you can in order to talk to them about challenges they may have a new externship or challenges that have with the new course that has a different instructor something like that.

This model of dual advising developed to ensure students are meeting both academic and clinical benchmarks and has worked in this program by creating a team approach where the student and both of her advisors are actively engaged in regular semester advising sessions as well as frequent check-ins that work to creatively determine strategies and provide coaching that lead to success. This practice aligns with Dweck and Leggett's notion of effort is the path to mastery through the practice of strategy generation and coaching to achieve a student's goals (1988).

**Documentation is essential to keep faculty and students accountable for their roles.**

Another important element to frequent broad-scale assessment mentioned by a number of contributors was the importance of documentation in the student advising process. Participant 4 provided insight regarding the importance of documentation when she and her faculty recognized

they were not documenting all advising encounters and, in fact, were only documenting when difficulties arose. This dilemma led to her program regrouping and establishing a protocol for documentation of all advising encounters – good or bad – as a way to track both accommodations and accomplishments of students.

Documentation of advising encounters was also recognized as essential to guiding students successfully by participant 2. He stated:

We need students to realize that ‘their failure is not the end of the road,’ which is an important part of advising communication for this program. There is a point where they don’t have more opportunities – which is pretty rare – but I guess... we have become very good. We’re trying to be very good at documenting communications with students and our advising meetings because of challenges we’ve had in that communication process.

Both participants 2 and 4 were open in stating that the practice of documenting student meetings regularly has emerged from past challenges that have occurred during, or as a result of, less than optimal communication practices. Ultimately, the practice of regular documentation has added a sense of improved awareness for their students’ well-being and needs.

It would be difficult to discuss the need for documentation of student encounters without consideration of students with disabilities that are enrolled in graduate programs. Participant 12 provided an example of a situation that arose regarding disability accommodations. The student mentioned in her example needed a documented accommodation of “flexible attendance” due to a health condition that causes fatigue. After the student had called-in a few times on clinic duties with short notice, the faculty decided this was not a reasonable accommodation to make since it compromised the services provided to their clients. The disruption in patient care continuity led

to her program developing a definition for “essential functions” for the role of a speech-language pathologist.

Students who are admitted to the program are aware of what are referred to as essential functions.... The requirements for working as a speech-language pathologist essential to you ... you may have to sit on the floor with young children or help someone transition from a wheelchair to particular seat that might be testing this vestibular function. And just making those accommodations that this student may not sit on the floor ... It’s not a big deal. Or this student can choose to sit on the floor when it works, but can choose not to. Yeah. It's been a good advising situation. And we did something we had not before this student, we paired academic advising with a clinical advisor, so they work in tandem.

That was a great a great positive change to our program and advising.

Thankfully, the persistence of the student and faculty resulted in what this contributor thinks is a positive change for her department – the dual advising model discussed above. Each contributor to this section reported on how previous, less-than-optimal practices in the past have led to an appreciation of documentation protocols as crucial to the advising process.

**Regular advising and an open-door policy are optimal.** The final sub-theme to be explored that relates to the need for frequent broad-scale assessment is that regular advising and an open-door policy are optimal. The concept of an open-door policy may be interpreted a bit differently from program to program, but the attitude regarding this philosophy was discussed as positive by all contributors. Participant 1 suggested that advisors must listen and allow students opportunities for self-realization. Listening to the student will allow advisors to figure out how to best help them. She stated: “I think regular advising and open communication are really things that are very necessary if you are going to be able to work with the students...” Participant 5

discussed the graduate program director of her program and how her willingness to accommodate student needs for advising is a wonderful example for everyone else on faculty:

Our graduate director is the one who does like overall advising sessions and things like that because she's the type of person that she is very much this forward thinking, a very open-minded person. She's always available to students. And I would also say... our supervisors ... many of them have come from our program as well ... they know what our program was like and how we manage and work with students. The students also feel equally as able to go to them as advisers and everything like that's why there's never a problem with them in terms of open communication to be able to work with students to work on a formalized plan.

The open-door practice of one faculty member in this program has influenced the practice of other faculty, as well as off-site clinical educators and empowered them to have a role in advising and mentorship that goes beyond the mandate of semester meetings.

Participant 10 also recognized the importance in regular meeting and flexible advising to meet the needs of a variety of students: “In order for people to be successful, especially for some, more intensive advisement is required. Others benefit from standard format.” This participant made an important comment that reminds us advising should not necessarily be prescriptive as students will need different degrees of support. This philosophy of advising practice is shared by participant 14. She reported: “We kind of have that open door policy. So, and I think students feel pretty comfortable about coming in to see faculty.” Some students may need frequent regular advising, some may just need to know you are there if there is a problem, and still others may only attend the one-time-a semester required meeting.

A variation of the required regular advising and open-door policy was discussed by participant 15 as her program really only follows the mandated CAA requirement for advising because this program follows a “lock-step” schedule.

In terms of open communication, everything's online. Everything that we're going to be saying to them so they can see online before, during, and after these advising meetings.

On the grad level, it's a little more structured when entering the grad program. Each of us gets about four advises, and we meet with them each term. We have to collect a signature on that each term because of the CAA standard. Grad program is pretty much lockstep.

We have a cohort resident's program. So we're kind of just making sure that they take very few electives, and that there are really no other issues or questions or concerns.

Notably, this lock-step advising does not mean that students are not advised any other time. Her description of student support follows more of a mentorship model where students go to a variety of faculty and supervisors for advice and direction rather than any one person. Despite slight variations in interpretation and practice for regular advising and open-door policies, each of these contributors recognize how staying in touch with students can only serve to better their program and help them to achieve their shared mission of engaging the professionals of tomorrow.

Frequent broad-scale assessment through advising policies and practices may insure this preparation happens responsibly.

### **Faculty Openness to Accommodation**

The next theme explored was faculty openness to accommodation. Highlighted subthemes for which examples and quotes regarding faculty and administrator practice were provided include:

1. Willingness to implement accommodations

2. Normalizing accommodations may help to alleviate the stigma
3. The relationship between mindset beliefs and accommodation practice
4. Faculty flexibility may help with success of accommodation

Results from participants regarding openness to meeting student accommodations are presented below and both positive and negative considerations were given.

**Willingness to implement accommodations.** The first concept that emerged through analyzing examples related to faculty openness to accommodation was a willingness to implement accommodations. Exploring student needs and access to information oftentimes means faculty must accommodate learning, mental health, and physical differences. Participant 2 provided his view on the culture of his department in terms of willingness to accommodate a variety of student needs:

We are more than willing to accommodate students who need accommodations. Again, the principle given who we are as a practicing profession (SLPs), I think looking for lessons in others' successes and in their nonsuccesses as well that is how to best make those accommodations and apply them appropriately. And, we make sure that we scaffold students so they can develop into practicing clinicians that can mimic their need for accommodations... I think... how do we help the student grow so they need less or no accommodations? Especially, clinical practice is pretty tough sometimes to try to implement some kinds of accommodations. Timelines are timelines – set by others... You know, physical accommodations are usually easy; it's the right cognitive accommodations that are difficult.

The impression that Speech-Language Pathology is a helping profession demonstrated his belief that this carries over into the care and flexibility we show our students. Participant 2's candid



admission that some accommodations are easier to meet than others does emphasize that openness, or willingness to accommodate, does present challenges with implementation despite an overarching philosophical understanding in accommodation intent.

Participant 9 shared the sentiment that we as a profession may be more willing to accommodate because of the nature of our professional work:

By nature in this field... we want to be as accommodating as possible. But the discussions in our department and from things that have been brought up at conferences and CAPCSD sessions and things is, we've really kind of gotten to the point where we tell the students that we can't make a lot of educational accommodations for them unless they go through our office of accessibility services, because with that there's the legal ramifications, like we have to have some type of equity in the program too, and so even though I want to accommodate somebody with a quiet test environment or extra time, I think it's important that they understand the procedures for that to happen because it's going to be, you know, similar in the workplace, and when they're working with clients.

Both participants 2 and 9 discussed willingness to meet accommodations for students; however, barriers of being amenable while maintaining a degree of rigor necessary for achievement of professional standards is often difficult. The following examples will discuss these barriers further.

*It is not always easy to provide or maintain accommodations.* Unique challenges arise when there is an expectation to make accommodations alongside mandates to meet knowledge and skill requirements for a professional role. Participant 1 admitted that it is not always easy, but believes she and her faculty are open to innovative ways to make implementation of accommodations work:

I think we're doing a lot of embracing changes in how we're running into more and more students that have different needs, more challenges. I don't know whether embracing would be what I would call that... we are experiencing changes and I think we have to be aware that student needs are different... We are trying to look at how we monitor student progress.

Participant 3 provided a similar response:

It certainly makes it a growth mindset... makes you definitely open to... what can I do to accommodate this student's needs? And not all faculty do that. I think that's a natural piece of us, as people who work with individuals with disabilities, but I don't see that necessarily in all other faculties in our university.

Previous quotes provided the assumption that CSD faculty may embrace a philosophical understanding related to intelligence malleability more so than faculty in other fields.

Participants 1 and 3 recognized the challenges, but appear open to working with students and finding solutions to potential barriers. Participant 11 mentioned that sometimes we must find lessons in others' success to figure out how best to meet students' needs:

How can we delineate our expectations? You know, the behaviors that we really want students to demonstrate and make them aware about at the beginning and then have discussions with them about how they're doing as opposed to... a student gets put on probation because they weren't doing well interpersonally. So that would be one example of where we adopted another person's sort of framework for that. Accommodations are certainly something that we talk about as a group, and I think that we already approach it with a more positive orientation being people who work with individuals who have learning disabilities, other concomitant problems, so I tend to think or we're inclined to

be a little more positive in that direction. But at the same time... How do you deal with showing videos and classes when you have students who are hearing impaired?... How do we handle that as a group? Whose responsibility is it? What is fair in terms of do you have an alternative, or should you only use things that are available to everybody? And how do you feel about that and what does that say about your values as an instructor? I think that I find a little more challenging because my experience is that instructors really tied to the way that they do things, especially what's worked for them before.

Participant 11's contemplation of the need for universal design, while still maintaining high quality instruction is not likely an issue that will go away. As with previous contributors, he recognizes the challenges, as well as individual tendencies toward rigidity of teaching practice that need to be overcome.

Participant 2 discussed not only learning from others' successes, but the importance of learning from our failures when it comes to student accommodation:

We definitely have had examples where there have been times we'll try to make accommodations work and they have not worked really well. And so, we've used this as learning experiences, and try to move on and learn how to do a better job for the student next time a student has a similar accommodation.

Considered collectively, the responses are meaningful in that they point out the strength of our profession in searching for accessible means for all students, while recognizing it is not always easy. Luckily, each of the contributors in this section believe their programs are actively seeking solutions to these obstacles that will help them reach more students effectively in the future.

**Normalizing accommodations may help to alleviate the stigma.** Another subtheme under the larger category of faculty openness to accommodation is the potential to normalize

accommodation need to alleviate the social stigma. A common issue in higher education is a student's reluctance in admitting they need learning, mental health, or physical accommodations. Participant 4 stated simply: "Sometimes students, especially at the graduate level they don't want to ask for help. They just want to see if they can get through the program without help, and then sometimes they'll fess up that they have a disability." Unfortunately, little can be done about a grade already received if documentation of accommodation need is provided to an instructor after the fact. Helping students to recognize self-advocacy and strategy use can be seen as a strength rather than a burden may be one way to alleviate the social stigma associated with disability.

Participant 6 provided an example that demonstrates how her program's philosophy of alternative education models has changed over time:

One of the things that we've realized is that some students need a little slower program that we are typically a fall to spring, five semester program and that some students just struggle with that. And so we announce at orientation to let students know right from the beginning if you're feeling like this is a little bit rough for you that we can reduce your clinic load, doesn't increase your cost and then you stay an extra semester so that you're just getting your clinical experiences a little bit slower rate. And so I think that that's something that we tried, I don't know eight years ago, nine years ago, we found that it makes a difference for a few students. And I actually have... two students this semester saying 'I remember you said that. Can I do that in the spring semester?' So I think that's something how we've seen success in the past and just changed our program in that respect.

A final comment on the need to normalize accommodation in the classroom was mentioned by participant 14. She discussed the way her institution ensures students are aware of academic support services available on campus:

Like most other universities we have the center for diversity, for academic support. As I said we have this building bridges program. So, I think if students need any additional support in any way, it's available to them. All our faculty that do student advisement are aware of all of these different programs. So if we feel a student might benefit or need that service we certainly advise them about that service. Our students go through an orientation at the beginning of the academic year. So they're also informed of these services. There's posters all over campus that usually also provide students with information with regards to their kind of personal needs.

In summary, interview data document that teaching students to self-advocate and to access services in a timely manner is important. In addition, institutional practices to market academic support services can go far toward making sure students know where to go for help and to file their disability documentation to receive services.

**The relationship between mindset beliefs and accommodation practice.** The next subtheme related to faculty openness to accommodation is the notion that belief in dynamic, or malleable, intelligence directly aligns with openness to accommodation. The first example of this is seen in a response from participant 5:

We have an academic standards committee that is staffed by our graduate director, our externship director, and our internship director, and we meet with students. So if the student is failing a class or failing a clinical practicum, but also if there are soft signs; which I don't know again about you all, but we see a lot of students now [with] a lot of

anxiety and a lot of stress coming into their lives in terms of how we work with them. So we've again had to really change our focus in terms of how we work with students... to help them be able to get through that. [If] students cannot maintain... the rigor of the pace of the clinical courses we're able to say why don't you not do the clinic right now. Why don't we just do the academic classes and then it will take them longer to finish but at least it's a way to meet them and it's more individualized... as opposed to just saying you're not meeting, you're not meeting this, and you're out.

Participant 5 described the willingness of their faculty to work with students through either remediation or alternative curriculum delivery to help students be successful. This degree of malleability on the part of the program and faculty demonstrates their belief and follow through with accepting dynamic intelligence as sound.

An interesting take on this flexibility comes from participant 13 who happens to work in a smaller program:

We'll often get students who otherwise would not have been admitted to a graduate program in Speech-Language Pathology. We'll often find that we have to tweak... the way we address a particular learning outcome or the way we measure a particular learning outcome because our students do come from backgrounds that are different, that their world views are different. And that's our mission to embrace that diversity of student body. So we look for lessons in success. How does University X do it, or how did instructor Y do it? We look for others to give us examples of success so we can borrow from it.

This response provided insight into a true acceptance of belief in dynamic intelligence.

Recognizing that their student body make-up differs from many other programs causes this

faculty to be open to change and to actively seek lessons from the success of others to create a program that accommodates a variety of learning, mental health, and physical needs.

Participant 7 provided a clear description for how belief in dynamic intelligence should yield preferred practice toward meeting students' needs:

If you believe that intelligence is able to be shaped, molded, and continued then you would challenge your student, and then if they had difficulties, that you would help them pursue appropriate accommodations, whether it's through the disabilities office or whether you help them learn to self-assess and identify the type of learning strategies that would help them be more successful in the classroom.

Intelligence beliefs and flexible practices of contributors often model instructional strategies that have helped students succeed. Notably, there must be some degree of student accountability for the suggested processes to be successful. That said, implementation of accommodations typically will begin with a faculty member who demonstrates flexibility in their instructional methods.

**Faculty flexibility will help with success of accommodation.** The final subtheme in this category is that faculty flexibility will help facilitate the success of student accommodation. As mentioned previously by participant 11, faculty often are tied to the way in which they have always operated. That rigidity of practice may be detrimental to setting the stage for success with students who require accommodation. Participant 6 believed everyone on her faculty demonstrated a great deal of flexibility; she said it like this:

Those three examples of feedback and coaching and error free [learning] I think are really the philosophy of the faculty here... that we give students a lot of second chances because we want them to be confident. And so they're if they don't do well on a particular assignment they may get an opportunity to do it again and then the grade is the average of

the two. And legally that's really important to make sure that they are ready to go into the workforce. So I think that is the full effort as opposed to error free. We also know that you have the same experience they get to grad school and think they have to get all A's and we remind them that they have to do their best. They have to be. They don't have to be perfect, but they have to be an excellent clinician. And that does not mean everything is A+ work, so that's an adjustment. I think we do a lot of the clinical educators do an amazing job coaching, which I think is true of the nature of a person that's a clinical educator. We let the students know that if we knock on the door and come into the session it's not because you're doing something wrong. It's because we have a little more experience, and we want to demonstrate something for you because the written feedback which is the first item dissemination or feedback sometimes isn't enough to help the student see how to do something differently. So that's kind of a mixture of the academic and the clinical faculty examples.

The response provided by participant 8 also describes the tendency toward flexibility of faculty in Speech-Language Pathology programs:

I think the more that we are flexible, the more that we have an open mindset, the more we'll be able to meet student needs and will embrace those needs and see possibilities rather than impossibilities. You know, I know, for example, that it's very hard for students to get into graduate programs these days. I know that as we have embraced diversity and you know, we've accepted students many times that have some learning issues, for example, but we're willing to be supportive of that and help those students and make an investment... we know they're bright; we know they can do it; and we also know they're empathetic and they'll be able to take with them something different to the



clinical setting... I don't think you get a lot of rigidity in people that are attracted to our field... you get more flexible people that have a little bit of art in them as well as science.

Continued descriptions of ideal practice patterns in terms of flexibility were provided by participants 5 and 13. Notably, their responses were similar to the previous contributors in this section. Participant 5 stated:

You know I think that that flexibility and being able to work with students, not being able to say you have to meet this kind of expectations or you're out but just that you that we work with them and working meeting them where they are and working with them individually.

Likewise, participant 13 mentioned:

If you accept that there are different ways of seeing the world, then I'm thinking I'm more open to their different styles of teaching, their different styles of imparting information, and there are different ways of demonstrating what you've learn how you've learned it.

It may be telling that only participant 12 gave a direct example for an instance when her program stepped up and dedicated themselves to flexibility in practice to benefit a student in consideration of participant 11's previously expressed concern about rigidity in instructional practices and the literature's warning regarding socially biased responses. She reported an example of a student who plans to withdraw from her program, but wishes to complete the remaining two courses from the previous semester from a distance rather than have incompletes on her record. This situation proved to be a challenging one as it required intensive advising, faculty collaboration, and flexibility on the part of all faculty involved. She reported that due to the flexibility of her team, they were able to meet this student's needs successfully.

It is apparent that the majority of contributors clearly see the importance of flexibility in making sure student accommodations lead to student success; however, the degree to which this belief is implemented in practice cannot directly be determined from the information provided. Ultimately, contributors agreed that faculty openness to accommodation was a valuable consideration toward making preferred practice decisions as they relate to students' variable needs, though continued creativity and innovative solutions to academic and performance barriers will be needed to ensure students are meeting both knowledge and skill requirements.

### **Intervention Planning Models**

Intervention planning models was the next overarching theme that emerged during analysis related to student standards. Subthemes explored include:

1. Planning for intervention should be hierarchical, transparent and fair
2. Faculty acceptance of intervention models has evolved over time
3. Interventions should be individualized
4. Interventions should maintain high quality standards

Review of these themes revealed some conflicting ideology about how faculty or administrators should intervene if program expectations are not being met. A major indicator that arose from analysis of the interview transcripts revolved around whether participants took a faculty-centric approach or a student-centric approach to intervention.

**Planning for intervention should be hierarchal, transparent and fair.** The first subtheme explored will be the idea that planning for intervention should be hierarchal, transparent and fair. This notion was first discussed by participant 2 where he presented the view point that there should be a protocol that is followed when students require intervention for not meeting program expectations:

We have an infrastructure in place whereby when students aren't meeting expectations we have a whole hierarchy of going from faculty advisor who [they] are assigned to for five years in a five-year program intervening with a student to putting together a faculty mentoring team that will help the student. [We] do our best to help student success.

The idea that a protocol for student advancement should be maintained was echoed by participant 6 as she described the practices of her program:

I think that as we do our mandatory remediation plans, which we call improvement plans, we have all been guided by what's worked well in the past. We have... well for example, when students start our program, we now have them take a phonetics and morphology and syntax test right at the beginning. And so, if they don't do well on that, they have to come up with a plan about how they're going to get better. And the reason for that is, we found we are spending way too much time in the Arctic and phonology class in the language class reviewing those topics. They should have mastered in their undergrad program, so and we've evolved that over time. that the first we first introduced it as a competency assessment. And then over time, we said if they don't get to the competency level they do 5 percent ... You have to come up with your own plan about how you're going to get better as opposed to we tell you. And then, last year we had two students who never got there, and so they had to take a one credit class to address it. Well now we mentioned that upfront ... if your plan doesn't work, you're going to have a one credit class and oh my goodness everybody did well this year.

In this model, not only is there an intervention plan, but there are set benchmarks that students must meet in order to proceed. Remediation occurs if these benchmarks are not met. Students are made aware of these requirements from the beginning and are encouraged to do their best to

avoid any necessary intervention. Participant 6 reported that each student met the benchmarks this year.

Participant 7 described a more fluid approach to the notion of a hierarchal intervention model than what was described by the previous two contributors:

If I feel like the candidate doesn't have those knowledge and skills, then we would enter into a remediation plan, whether that would be repeating an exam, repeating a project – not to improve the grade, but to ensure acquisition as the skill set needed. So the way we're structured is like a student may have successfully passed a course, but not have the knowledge and skills developed that might continue beyond the academic terms. An example, last year we had a student this was not and one of my courses, but a student who could not really wrap her head around some fluency shaping techniques, she could define them, and perhaps, pass an examination that would require you to match them or whatever but she couldn't demonstrate how to use them clinically. So she passed the class, but she was on remediation beyond the length of that academic term until she developed with additional support, and it was really the coaching that was provided by the instructor of record. She later developed the skills... she's out doing her externship now. But I guess I feel like our policy is aligned with... believing that you can grow, that you can change, that it's not that she didn't do it the first time and you can't do that ever again. So I feel like that practice perhaps aligns with a growth mindset.

In reviewing the growth mindset versus fixed mindset belief patterns, she believes this degree of flexibility aligns with the growth mindset philosophy as they meet the student where she is and design a more individualized plan to help her achieve competencies.

**Faculty acceptance of intervention models has evolved over time.** Another subtheme that has emerged through this analysis was the evolution that has occurred in faculty acceptance of intervention models over time. Information provided in the previous section described processes that are hierarchal and transparent with some degree of flexibility, whereas previously there might not have been the same amount of effort to intervene on behalf of the student to support their success. Participant 11 stated:

We had discussions as faculty around how we talked about students and we would go through faculty meetings and before I took over as program director we would have a section on the agenda called student concerns. It was a chance to talk about who's in trouble in our program. I remember saying, well when are we ever going to talk about good things that students are doing... We did then start to try to talk about who's doing really well... and we wanted to try to highlight certain students.

The conversation that revolves around students has evolved in this program to include not only concerns, but achievement. Participant 11 believes that this shift in conversational tone has positively impacted the willingness of his faculty to embrace and successfully implement intervention models that promote student success.

Participant 3, who is a seasoned department chair, admitted that earlier in her career, the organizational mindset was much different than it is now in terms of allowing for intervention opportunities and second chances:

If you didn't believe in... [growth] mindset, you wouldn't even try to train [students]. You wouldn't try to give them additional opportunities. I mean, it's kind of foundational to the fact that... we intervene... it's a very different mindset. I think we've made that adjustment. We didn't use to... A student just failed, so then they would have to retake it,

compared to now, having much more of an interventional approach when the student is struggling... [you] can't act quickly.

The same shift in organizational mindset was noticed by participant 14, which started when external mandates by the CAA brought student accommodation and intervention issues to the forefront:

The hardest change for our faculty is when the CAA started talking about all learning outcomes must be met, and therefore, students must be given the chance to meet the learning outcome if they don't first time around. So, this concept of remediation... I'll admit, that for some students, that puts a lot of extra work on a faculty member. You know where we have to remediate. We've done it. Where the student if they didn't meet a learning outcome on a project or exam, the grade still stands, but they have to do the extra work, and I think you know it's been now three or four years now since we've done this remediation at the graduate level. And I think faculty are finally coming around to it. It's not as great (in terms of faculty effort) as what we first thought it was, not as many students actually need that remediation and that remediation actually does help the student either understand those underlying concepts in a didactic course which will help them when they do get into their clinicals and or if they need remediation at a clinical level we can address that... You know we don't want to send anybody out that's going to be a disaster. So you know I think that now, in terms of angst in our faculty – it has dissipated.

Change is rarely easy, but through a gradual adaptation, the faculty in participant 14's program adapted and recognized that sometimes remediation can be effective in helping a student meet

their learning outcomes. These types of practices are now commonplace and no longer cause ‘angst’ in faculty.

A useful lesson can be learned from participant 7 as she discussed a policy implementation that has created more open communication between faculty and students in terms of student achievement and need for intervention:

I really like our disposition policy and that we are quick to remediation when candidates are not performing well. We also have a systematic way of ensuring that no one is on academic probation, and if someone is, we amp up the supports that are needed to get the student back on track. And some of that is honestly just continuous conversation with the candidate, and prompting them to reflect upon what they've learned and reflect upon if a test didn't go well, what they could have done differently. So, I think that we model that ability to learn from criticism or setback.

In this model and partially due to their “disposition policy” which guides intervention procedures, students receive feedback and small step intervention expectations as part of their regular education processes. The description above described a policy that is transparent and promotes frequent communication and remediation to work proactively toward student success.

An impression that has not been discussed relative to faculty accepting implementation of intervention models comes from participant 1; she believes you can “shift the interventions” essentially creating individualized plans without compromising quality expectations. “I think that there is a limit; you can be so malleable that you can be an amoeba.” This message indicated a dedication to creating accountability in her students. Participant 1 further insisted that her entire faculty is willing to make reasonable modifications in terms of teaching style, recognizing preferences of the learner, and establishing a variety of different practice strategies. All

contributors considered we have come a long way as a field and group of educators toward accepting intervention as positive toward student growth, but we still have some room to grow in terms of striking a balance between devising protocols and allowing for flexibility to suit an individual.

**Interventions should be individualized.** The third subtheme that falls under the category of intervention planning models is the need for interventions to be individualized according to a student's unique needs. To this point, contributors have recognized this need; however, it has not been clear that individualized intervention planning is always applied. The first discussion about individualized intervention plans can be seen in this response from participant 15:

We have students who may be accommodated from their actual enrollment in a course or practicum and others we sort of see trouble along the way. So we remediate mid-semester or we maybe change requirements for that student and maybe set some aside and say 'OK. We're already knowing November 1st, we'll be remediating next semester. Let's just push this part of the remediation get you through where we can now.' We may... see that a student really just needs to do some work for a subsequent semester in this class or in this practicum so we post it incomplete and we go ahead and we remediate.

The intervention model described by participant 15 incorporates a general plan for how remediation occurs, while allowing for flexibility in how the plan is carried out. Only a few participants discussed this high a degree of flexibility with intervention models. Participant 11 was another who stated:

I think anytime a student gets into trouble, we tend to think about 'Well, how do we remediate this kind of thing in the past? How do we try to assist students in the past?'



And sometimes, we get on the road of saying ‘Well, how did we did get into legal trouble in that sense in the past?’ But in other cases, you may look at it as somebody who actually got off probation. ‘How did they do this? How do we structure the program for them?’ And then in cases where we didn't, we should try to troubleshoot, and say ‘Well, what happened there that the student was not able to come off probation’ for example. There are times where, just frankly, we've actually had to work around an instructor who was not willing to go back and be the one to assist somebody. And we said ‘Well, let’s have this other person assist you,’ or ‘I think it's going to be better if you take a class from somebody else just so that you can get to where you need to or have some success.’

Not only does participant 11 describe quite a bit of flexibility in this discussion, but he openly admits that sometimes as an administrator, he must work around faculty members who may not be willing to work with a student through an intervention process. This situation makes it doubly hard to intervene with barriers coming from multiple angles, but ultimately, the tone of his response suggests the modifications are worth it to see students through to success.

Participant 2, who previously mentioned the importance of having clear protocols for remediation and intervention processes noted that with the appropriate supports, students should meet the learning outcomes set for them.

Moving forward with that student, they’ve got opportunities to revise and update and then retry and retest. And I think, I don’t, I can’t think of an example where a student has not been able to demonstrate competence, knowledge, or skill competence that has affected how we deliver the program because it’s been individual - idiosyncratic to the student. This response repeated the notion of student accountability during the intervention process that was formerly mentioned by participant 1. All in all, contributors recognized that students may

present with different learning styles and different accommodation needs, but striking a balance between transparent protocols and flexible delivery according to the individual student's needs remains a challenge.

**Interventions should maintain high quality standards.** The final subtheme to discuss under the overarching idea of intervention planning models is that interventions should maintain high quality standards. ASHA mandates in the 2014 Standards and Implementation Procedures for the Certificate of Clinical Competence in Speech-Language Pathology (2016b) that knowledge and skills should be met to work professionally as a speech-language pathologist. Therefore, a graduate degree program must maintain a degree of rigor that promotes student engagement. Participant 3 reflected the following about intervention planning and maintenance of certification standards:

It certainly pushes you to be creative, and thinking of ways to improve your intervention... sometimes students aren't going to progress. Now, that's not necessarily fixed mindset. It's when we've done everything we could, and things are sometimes where... there's not been change, and it's just not likely that there's going to be change. You've got to call it quits at some point for some students.

Participant 3 brings up an important point of discussion as there is a high level of responsibility in Speech-Language Pathology graduate programs to cultivate professionals that will serve those in our community with knowledge and skill, while maintaining a high measure of professionalism.

Participant 11 described an example of how his program has faced this challenge in the past:

Before I started as program director, there was legal action taken against someone that relative to an accommodation, and you know we had to think about how we would react to that. And I think one of the discussions we had for a while about it was around essential functions of the profession, and we had to then say, 'Well how are we talking about us as students?' Because then people entered in with an idea of 'Hey, you can't discriminate against anybody,' but then on the other hand there was an essential function side to what it is that we do. And how do you talk to a student about that without it being discrimination, but at the same time we're trying to be realistic about the essential functions of the job. And I think that anytime you have legal action, it's easy to just say, 'let's make sure we just cover all our bases all the time and never take any risks. And you know lets...' I don't think we did that. But I think that's you know our program also got criticized by administration and said, 'Hey why didn't you see that earlier? Why are we in this situation?' So I don't know, I guess the ultimate leading outcome wasn't around, an essential functions discussion that we might feel a little freer to actually bring that up without it worrying about, 'Hey, that's automatic discrimination.'

Notably, participant 11 was not the only contributor to discuss the need to define essential functions of the profession to provide clarity for what a person must be able to do to fulfill the responsibilities of a speech-language pathologist. Essential functions were also mentioned by participant 12 as a development that occurred after difficulty meeting accommodations for a student in the past as they would prove detrimental to her professional career.

A final example of the need for intervention models to abide by high quality standards was supplied by participant 15:

Sometimes there's a student who is just not doing well with first year campus clinic, and it's really just not going to work for them to go off campus for the second year on schedule. They may stay with us for another semester. Usually one semester to work with our faculty and a little bit more of a sheltered way as we would call it for another semester, so a delay in going to a field placement might be one way of doing it. We know a lot of our extern supervisors very well and we can select those that we think are a good match, a good fit for a particular student in terms of the way that they advise or instruct and supervise those individuals we can get a little bit more hands on supervision if need be. We consult the field placement that is a little bit less demanding. We wouldn't put them necessarily into where we know there's a large caseload or high acuity patients or something like that. We would basically look for a way to ease that student into the field placement.

Each contributor who spoke to the theme of intervention planning models provided information that demonstrated a recognition of the need for intervention as a component of learning for some and verbalized a belief that we can learn from our mistakes and/or failures – which is a component of growth mindset beliefs. Putting student intervention needs into practice in a way that will benefit the student, while maintaining a need for student accountability and maintaining quality standards is not always easy according to the respondents. The openness toward providing modifications to learning outcome demonstration, the growth beliefs of each administrator who commented in this area, and the degree of concern for the barriers that sometimes make interventions challenging all speak to the care and commitment students need from administrators and faculty alike.

## **Advising and Mentorship**

The final theme that emerged for student matters as met through a growth mindset lens was advising and mentorship. Subthemes explored include:

1. Open communication and mentorship are beneficial to the students-faculty relationship
2. A humanistic approach to advising is optimal
3. Advising may be an optimal time to guide a student in shifting their mindset

Each of these highlighted subthemes will provide insight for how advising practice can be optimized if done through a growth mindset philosophy. Notably, all participants discussed growth mindset variables as beneficial to the advising process; however, they were candid in admitting that more could be done to optimize the advisor-advisee relationship.

**Open communication and mentorship are beneficial.** The concepts of open communication and mentorship as they relate to the advising process may seem obvious. One can easily surmise that these practices would promote student engagement and encourage lifelong learning. Several contributors to this study discussed advising and mentorship through this subtheme and recognized that practicing open communication and providing mentorship align well with growth mindset beliefs. Participants hoped that through advising practices they are more in touch with student success and discussed ways they promote preferred advising practice in their program. Participant 2 began by mentioning that basically all advising that occurs in his program is about ensuring student success as curricular advising is prescribed.

We insist that students meet with the faculty advisors once a semester for the touch-base time. It is not a curriculum advising as we are a lock-step program, but in a general advising process to make sure we are trying to help students succeed.

Participant 3 described a similar strategy and included examples of the types of information that may be shared:

Using examples of prior graduate students and what prior graduate students have done to accomplish whatever a goal might be and use that as an example for another student to [provide strategies and coaching].

Both participants 2 and 3 believe that the advising process is ultimately about student success and offers a time to give a student the tools and advice they need to be successful.

Beyond a general sense of mentorship, participant 6 discussed the potential that who does the advising may matter as well:

I was in a meeting with chairs from other [state] programs a couple weeks ago. We were talking about some of the need to have somebody on the faculty that some students are more comfortable going to. And we were laughing... [maybe] a person with multiple earrings and a person with a tattoo, or a person whose hair's a little bit different. If they're... you know I'm 60... the age of some of their grandmothers. And so, it's sometimes off-putting to come to me with an issue, and they're gonna be more comfortable with somebody that looks a little bit more like them. So that's part of our brainstorming about how we advise them.

The idea that familiarity with an advisor or mentor may be beneficial to the advisor-advisee relationship may play a part in a student's willingness to seek out help according to this contributor. Whether it has more to do with age gap or physical similarities has not been determined, but there may be credence to the general concept of interpersonal ease. Participant 7 mentioned:

You just have to be honest when advising students and help them learn to acknowledge how to improve performance. You know how to increase their likelihood of admission. So, I think being able to have that advisor-advisee relationship where students feel supported and can be honest and transparent about the difficulties that they're facing academically is ideal, you know.

Creating a degree of familiarity with advisees may even make them more willing to seek assistance when intervention or additional supports are needed. According to participant 11:

I think that any time we have to discuss with a student about them not meeting a standard, it generally requires additional advising. They want to talk about it and understand why that is. Usually we're pretty prepared for that if we see that coming. We recognize that there is going to be additional time to support in the clinic and we know that we need to talk to somebody about their performance that's due to problems. Then we plan for that.

Regardless, each of the contributors in this section value the use of open communication and recognize the importance of establishing a sense of ease with their students. These conditions may contribute to quicker planning if remediation is required and a mentoring relationship that can help students reach their potential.

**A humanistic approach to advising is optimal.** The second subtheme related to advising and mentorship further explores the notion of advisor familiarity – a humanistic approach to advising may be optimal. Participant 3 puts it simply:

Sometimes it gets a little tense when those things [academic needs] come up, so I certainly try to incorporate a little bit more conversational opportunities to be a little bit more casual just to take the tension off some of these communications, talking about some of the other things that aren't classes and clinic [helps].

Participant 11 discussed one of the ways he establishes a measure of familiarity, while imparting life lessons in the following response:

I've had students ask me in advising sessions, right out, have you ever known anyone with my GPA who's gotten into graduate school, and then you know we can have a conversation about that. And you know, sometimes the answer is yes. Sometimes the answer is 'Well, I know somebody who's very successful now who had a GPA like that, who ended up being on a different path.' Anyway, I think it's always interesting to me when students do ask about others' successes. But in advising students, do ask about how am I doing relative to other people. What's going to happen in the future? And it's nice actually, to have successful stories I can [use] for students advising them.

Shared experience was discussed as an important teaching tool by a few contributors who agree with participant 11 that this helps students to learn from the success of others. Other important methods to relate to students on a more familiar level that align with growth mindset may involve use of coaching methods. Participant 6 described what this looks like for faculty in her program:

I think that is really the approach that we try to use with our students and help them to be persistent. I think that a lot of the coaching that we do for the students is reminding them that we believe you're gonna be successful because we admitted you to this graduate program. So don't take a setback and the grade you got on this test. You know every semester faculty have somebody in their office in tears because [they] can't believe they did so poorly on a quiz. They've never got the grade that poor in their life or some variation of that. And so I think the coaching feature of that is really critical and let them know that we've all been there.



She described use of both coaching and shared experience to help students cope with the stresses of graduate school.

Beyond using the power of shared experience and coaching through graduate school stressors, physical and mental health are issues that one advisor brings up as it pertains to success in school and life. Participant 4 stated:

I think so I'm always talking about sleep and hydration and motivation and so forth. And I think that some faculty don't believe in it but I think that others really do. And if you [don't] believe in it well, why are you a teacher. Like if you can't teach something to somebody and you believe everything is what they walk in the door with. Well why did they need you?

Participant 8 added to these sentiments, while recognizing that this shift in willingness to mentor and advise openly has not always been the most common practice:

I think on a personal level... when I started this course, you know years and years ago, I think a lot of my mentors had been more traditional in terms of you know being traditional academics and came out of traditional programs and I think as we see now faculty are coming out of alternative avenues... many of them have experience disability themselves... there's a broader more inclusive – I think – attitude of opportunity for faculty and the part of that may be driven by the fact that we need faculty and part of that's just driven by... we see the advantages of all people.

This reflection gives an alternative perspective as to why our programs may be more inclusive and willing to find innovative practices that help students succeed. The idea that more faculty have experienced disability either directly or indirectly themselves may make them more empathic and open was not explored by any other contributor. If personal disability exposure is a

factor, that exposure may contribute to explanations for how and why mentorship and advising practices have shifted so dramatically over the years in CSD programs.

Perhaps the other side of this humanistic approach to advising and/or mentorship comes into play as we provide constructive feedback to the students we serve. Participant 1 reported that she often has honest conversations with students where she shares her own experiences to set the tone for feedback that may be taken critically:

Let them see you are not criticizing them as a person, but there are things that need to change if they wanted to meet this goal. We're here to help them but it's not our responsibility, it's their responsibility and they are the ones... it's their life... we can help to support them... You have to step back and look at the learning style of the students to know how to help them.

Advising and mentorship are important roles of administrators and faculty alike. Respondents have established that open communication and familiarity are important to establish in the advisor-advisee relationship to create the opportunity for sharing that can lead to student growth. Some participants even believe the advising relationship is a good place for shaping of mindset to occur.

**Advising may be an optimal time to guide a student in shifting their mindset.**

Participant 1 discussed student mindset and the concept of advisors and mentors as crucial to molding the mindset shift needed by many students. She believes instilling growth mindset principles – if not by name, by intent – is a strength of her program.

A lot of students maybe fall into this fixed mindset because of the way that they perceive themselves, and then they give up or don't like the negative... They don't want to hear

the criticism that would allow them to grow. These fixed mindsets may make dealing with criticism difficult for students and may keep them from meeting competencies. She continued by stating we should “lead by example” and be active, engaged learners ourselves. Additionally, she believes that the role of the advisor is to be an objective party that can assist the student in self-realization in a way that can promote growth.

This notion of mindset development that may occur between a student and faculty advisor was also discussed by participant 13 as she discussed student goal realization:

So from time to time, we have students that don't meet the bar, don't meet the outcomes and those students we will meet with individually and help them also see that this is where you are [and this is] where we want you to be. I'm not comparing you to student A, B, or C... We're just trying to help you move from point A to point B, so you can meet your own goal, and then you know talk to the students about what their personal goal is and to try to... help them align their goals with program goals and what we think are viable career goals in our fields.

The concept of goal determination is reminiscent of the concept of self-realization and growth development that may take place as a result of continued study and having a healthy mentoring relationship.

Importantly, quite a few contributors discussed the importance of guiding students toward internal motivators and drives, yet realize this is not always an easy task. Participant 11 admitted: “The idea of trying to foster a sort of resilience in our students. I don't know. I don't think we do a great job.” The admission of falling short in creating an atmosphere where growth can be optimized may be a two-fold issue: one may be on the part of faculty who have trained these high-achieving students to perform rather than master a skill, while the other may be that

students are not always accountable for their own actions. Participant 13 expanded on her earlier comment to include:

You can't move someone until they're willing to move or until they see a need to move. Sometimes we're stuck at the phase of helping students find or see the need to change. That's really tough. Sometimes people think the way they do things is the way they've always done things... It's a long process for us, and some minds we don't get to change...accept that.

Mindset shaping opportunities may even be missed due to simple practical faults of administrators and faculty. Participant 8 recognized that it is easy to fall into a pattern where advising may not be highlighted the way it is intended:

Some people will find advising is one that they can skirt a little... and I think that a lot of programs are creating very prescriptive advising processes. We have an advising day here and so our graduate students follow a very prescriptive process where they don't know a lot of flexibility. Part of this is because of ASHA... we're pretty prescriptive in the way that we manage advisement... I do think that is an area that we have cut a few corners on. At least I have personally... in terms of my investment... true confession.

Honest confessions like the one participant 8 provided reminds us that sometimes belief, philosophical views, and awareness are still not enough to equate to practice. Contributors, overall, recognized the importance of advising and the potential it has to impact student growth, yet with “lock-step” or “track” programs, prescriptive advising practices sometimes result in the needed open communication and measure of familiarity to fall back.

## Chapter Summary

The third and final standard that was reviewed was Standard 4.0 Students of the Standards for Accreditation for Audiology and Speech-Language Pathology (CAA, 2017). This chapter delivered information relative to administrators' perceptions of growth application regarding students. Research question 3 asked "To what extent is it feasible to use growth mindset principles in student learning initiatives for Speech-Language Pathology programs?" Themes that emerged include: necessity for frequent broad-scale assessment, faculty openness to accommodation, intervention planning models, and advising and mentorship. Consideration of these themes and subthemes revealed strengths in that many programs represented are willing to embrace change, are open to an array of strategies and methods of achievement, believe in the power of mentorship (shared experience), and value the power of constructive feedback as essential to the learning process. Areas for future growth may include identifying practices that align with the belief that effort is the path to mastery and demonstrate belief in dynamic intelligence. As with chapters four and five, this information on growth mindset may be used to help align the programmatic student agenda with adherence to Standard 4.0 Students of the CAA Standards for Accreditation.

## CHAPTER 7

### CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This chapter reiterates the study purpose and primary research questions, summarizes the methods, and describes the findings. In addition, study conclusions, discussion of implications, and recommendations for future research will be addressed.

#### **Purpose and Methods**

The purpose of this study was to investigate the feasibility of applying Carol Dweck's growth mindset model to selected challenges faced by Speech-Language Pathology graduate education programs. The accreditation standards targeted include standards related to faculty development, curriculum decision-making, and student learning initiatives. The following research questions were explored:

1. To what extent is it feasible to use growth mindset principles in faculty development initiatives for Speech-Language Pathology programs?
2. To what extent is it feasible to use growth mindset principles in the curriculum decision-making process for Speech-Language Pathology programs?
3. To what extent is it feasible to use growth mindset principles in student learning initiatives for Speech-Language Pathology programs?

A phenomenological design was followed to capture the lived experiences of the higher education administrators who are expected to carry out implementation of the Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language Pathology (CAA, 2017). The sample of this study was 15 CSD administrators with various lengths and capacities of experience, and information gathered from the participants underwent thematic analysis in hopes that the application of growth mindset principles to selected accreditation

standards may be used to promote longevity and autonomy of the Speech-Language Pathology profession.

### **Summary of Findings**

Creswell's (2014) guidelines for data analysis in qualitative research and Tesch's (1990) eight steps in the coding process provided the analytical framework. Data collected was organized according to themes that emerged through patterns in participant responses. Three measures of validation were employed: 1. completion of a pilot interview 2. request of transcript edits or additional comments from the participants was made to ensure their comfort with responses and 3. sample responses with preliminary notes were sent to multiple reviewers. Table 12 (Appendix D) contains a cross-analysis of findings including overarching and subthemes extrapolated from the interview transcripts.

### **Growth Mindset and Standard 2.0 Faculty**

Analysis of participant responses about faculty development in Speech-Language Pathology programs yielded the following overarching themes: personal belief systems, influence of the leader, flexibility, and outcome-oriented practice (see Table 7). Importantly, participants provided examples and anecdotes of both growth mindset and fixed mindset practices that occur in their programs. Interviewees responded to questions and probes about their own experiences, but as administrators are faculty in their own right, they were able to infer the influence of others' beliefs on their own practice, recognize that decision-making is often situation specific, and demonstrate an awareness of a general mindset culture from an organizational perspective.

Ultimately, responses that align with growth mindset principles emphasized instructional philosophies of these programs, importance of providing a good example for students, and the

importance of flexibility with all student support initiatives, institutional requirements, and professional development needs. In addition to offering information on preferred practices that align with growth mindset principles, many participants also offered information regarding barriers and limitations that they as administrators must work through (or around) to help their programs succeed. These barriers often aligned with personal belief systems of intelligence and motivation – both of these should serve as areas of focus for faculty training initiatives.

### **Growth Mindset and Standard 3.0B Curriculum**

Participant responses in the area of Speech-Language Pathology curriculum yielded the following over-arching themes: lessons from the successes (and failures) of others, influence of the leader, student-centered decision-making, and flexibility in curricular development (see Table 8). Again, participants provided candid examples of both growth mindset and fixed mindset practices that occur in their programs. Notably, the information provided by contributors for the curriculum content focused less on organizational constructs and more on administrator influence and specific examples of mindset practices as seen through descriptions of decisions. Explanation of institutional or CAA curricular regulations were only occasionally referred to as a matter of oversight.

Opportunities were prepared for contributors to comment on each growth mindset principle set; however, patterns emerged within some sets more than others. Responses that aligned with growth mindset principles represent methods of curricular design that promote pedagogical learning for faculty and planning that maintains students at the center of curriculum decision-making. Similar to direct faculty initiatives, limitations of curricular decision-making from a growth mindset perspective may include influence of intelligence and motivation beliefs that may hinder innovative practices. Thus, curricular training and education programs should



include promotion of self-reflection on intelligence and motivation beliefs, as well as models that explicitly include student-centered decision-making constructs.

### **Growth Mindset and Standard 4.0 Students**

Finally, analysis of participant responses about students in Speech-Language Pathology programs yielded the following over-arching themes: frequent broad-scale assessment should occur, faculty openness to accommodation, intervention planning models, and advising and mentorship (see Table 9). Participants, again, provided candid examples of both growth mindset and fixed mindset practices that occur in their programs. Delivery of responses for this set of interview questions was balanced between organizational mindset and situational outcomes.

Analysis of responses about students revealed that faculty, for the most part, believe in student growth potential and carry a sense of responsibility in helping students meet program expectations, develop a love for life-long learning, and accept feedback appropriately. Contributors admit that there may still be room for additional growth of student support in terms of humanizing the advising process rather than following a prescriptive protocol, striving to be more open to accommodating a variety of needs, and developing strategies that promote student acceptance of feedback. Therefore, applying growth mindset principles and practice to student support initiatives may occur through focus on understanding preconceived notions of intelligence to aid in delineating why some student support issues are more easily met than others.

### **Interpretations and Conclusions**

In consideration of the findings above, patterns were identified that may serve to distill the information into a more meaningful and applicable conclusion. The analysis in this section

serves to move the findings forward in terms of how they can be applied to Standards of Accreditation for Speech-Language Pathology graduate programs and how they can be viewed in terms of potential narrowed themes of relationships, flexibility, and pedagogy.

### **Standards and Application to Higher Education Practice**

Many growth mindset indicators were identified as applying to each of the three Standards for Accreditation targeted – Standard 2.0 Faculty, Standard 3.0B Speech-Language Pathology Curriculum, and Standard 4.0 Students – whereas some did not. Themes and subthemes from the participant interviews were able to be aligned with growth mindset principles as a way to demonstrate current areas of strength and areas in need of growth. A visual representation of this information can be seen in Table 10.

Table 10

#### *Growth Mindset Principles Aligned to Standards*

Growth Mindset Principles	Valued by	Needed Growth
Intelligence is dynamic	-	F,C,S
Desire to Learn	F, C	S
Embracing Change	F,C,S	-
Persistence in the face of setbacks	-	F,C,S
Effort as the path to mastery	-	F,C,S
Ability to learn from criticism	F,S	C
Finding lessons in others' success	F,C	S

\*F = Faculty, C = Curriculum, S = Students

The data from questions about faculty standards suggest that the growth mindset principles of willingness to change, desire to learn, ability to learn from criticism, and learning

from the success of others are common among CSD programs. Conversely, the growth mindset indicators of belief in dynamic intelligence, persisting in the face of setbacks, and seeing effort as the path to mastery are not common, and in some cases are not present across CSD programs. These indicators may require more intentional development. Furthermore, the less frequently noted principles alongside the theoretical implications of deep-seated beliefs about intelligence and motivation create possible limitations for our programs to reach an optimal level of success in terms of meeting faculty standards.

Similarly, the data from curricular decision-making questions suggest that regularly exhibited growth mindset indicators include willingness to embrace change, desire to learn (and teach), and willingness to learn from the success of others. On the other hand, growth mindset indicators not mentioned as frequently included general belief in dynamic intelligence, persisting in the face of setbacks, seeing effort as the path to mastery, and ability to learn from criticism. As with faculty mindset results, the less frequently mentioned principles may provide some insight about the need to more deliberately work toward shaping the mindset of students through curriculum.

Lastly, data analyzed regarding student support opportunities suggest promotion of growth mindset indicators of willingness to embrace change and an ability to learn from criticism. Growth mindset indicators not mentioned as frequently included general belief in dynamic intelligence, persisting in the face of setbacks, seeing effort as the path to mastery, and finding lessons in others' success. As with the standards of faculty and curriculum, less frequently mentioned principles may provide some insight about the need to more deliberately work toward shaping students actively through the support faculty provides.

## Holistic Analysis of Themes

Reflection on all themes and subthemes for the standards relating to faculty, curriculum, and students reveals important considerations for future development. Commonalities were found among the themes, and concepts of growth mindset viewed in terms of relationships between stakeholders, flexibility with implemented practices, and pedagogical design. Growth mindset principles were divided into those needing more immediate attention and those which may be targeted as a secondary area of program development as seen in Table 11.

Table 11

### *Lessons from Thematic Interpretation*

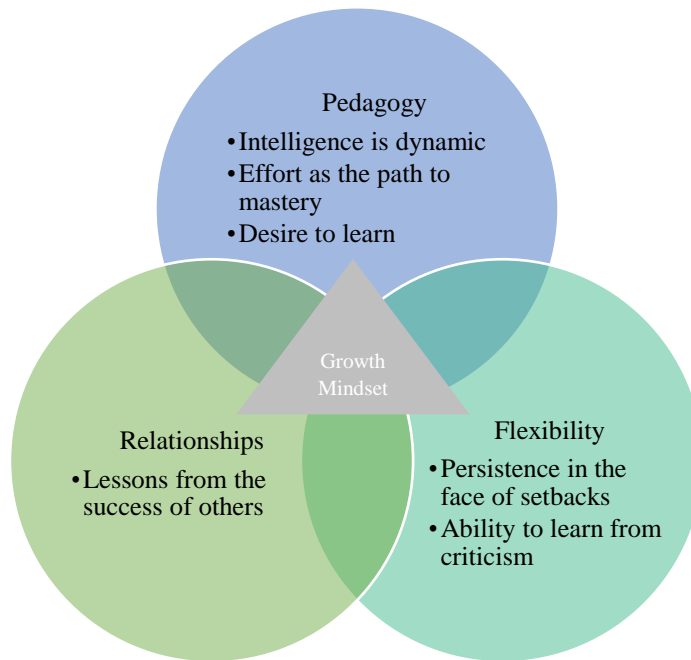
	Immediate Needs	Secondary Needs
Relationships	n/a*	Lessons from the success of others
Flexibility	Persistence in the face of setbacks	Ability to learn from criticism
Pedagogy	Intelligence is dynamic; Effort as the path to mastery	Desire to learn

\*Overall, ability to foster relationships is an area of strength for the programs discussed in these interviews; therefore, only the secondary need of finding lessons in the success of others was identified.

Considering the application of growth mindset for faculty development initiatives, curriculum decision-making processes, and student learning initiatives from this vantage point offers a suitable training model where more basic themes of growth may be applied to a variety of program needs. The benefit of reimagining these themes provides a variety of avenues for future training programs to accommodate the needs of individual programs and institutions. This model may be designed according to areas of program development where the objective is to promote positive relationships between stakeholders, encourage flexibility with implemented

practices, and practice growth-oriented pedagogical design. Furthermore, this model could be designed as narrowly or broadly as needed making it easily altered and situation specific. Figure 1 provides an example for a conceptual framework for program development initiatives that promote the three domains where the goal is balance in growth beliefs and practices across each.

Figure 1 *Conceptual Framework for Optimal Program Function*



Conceptual framework for alignment of thematic domains with growth mindset resulting in optimal program function.

Overall, contributors were positive about applying growth mindset principles in their future work and in the work of their programs. The majority of participants believed that in-service or continuing education initiatives that inform their faculty would be the easiest way to encourage understanding and action toward growth mindset use. In addition to faculty training initiatives, some contributors commented on the potential positive effect of explicitly teaching growth mindset practices to students. These notions on student training show that a crucial part of faculty responsibility is to shape the learning expectations of a student.

## **Recommendations for the Future of the Profession**

Ultimately, this study sought to determine the likelihood of using a growth mindset framework to drive the field of Communication Sciences and Disorders successfully into the future. The findings suggest that despite a general willingness toward change and open-mindedness in finding strategies that promote student and program success, there are still some extraneous factors that result in program rigidity and may stifle progress if not handled with care. Though attitudes differed regarding how growth mindset may be applied to the Standards of Accreditation and overall program development initiatives, participants by and large agreed that some application of growth mindset may be beneficial. An additional portion of the Interview Protocol (Appendix C) inquired about the likelihood of participating in growth mindset development programs in the future, as well as asked the administrators' opinions about whether or not growth mindset development may benefit future growth of the profession – specifically regarding the shortage of doctoral level professionals. Therefore, recommendations are discussed in consideration of the summarized findings as they relate to future growth mindset application.

In addition to practical application models of growth mindset training mentioned above, participants were asked if pursuance of doctoral education ties in with growth mindset principles for some students and whether or not it may promote successful development of the CSD fields. Responses to this probe were varied. Some participants noted that major factors for not following through to doctoral study may have more to do with money, social factors, or geographical boundaries as noted earlier in the study (ASHA 2002, 2008; Gillam & Hewitt, 2017; Hull & Coufal, 2009; Madison, Guy, & Koch, 2004), while others inferred that there may be a degree of fixed mindset tendencies that create a barrier for others. The examples provided in earlier chapters exhibit ways growth mindset in action may result in a faculty member influencing the

mindset of her students simply by suggesting the potential for growth and leading by example through growth practices.

### **Recommendations for Future Research**

A growing body of research exists in the arena of growth mindset; however, this was an original study exploring the application of growth mindset to accreditation standards in a specific professional field. The implications of this study, as mentioned above, demonstrate the potential for greater application of growth mindset principles for the purpose of understanding administration and organizational structure. Regarding application of growth mindset principles to the field of Speech-Language Pathology, recommendations for future research include:

1. Expansion of the current study to include all CSD higher education faculty;
2. Implementation of program development training models based on the concepts of relationships, flexibility, and pedagogy from a growth perspective;
3. Explore methods of infusing growth mindset practices into existing higher education courses;
4. Develop models that promote doctoral recruitment for interested CSD students earlier in their matriculation based on growth mindset practices.

Additional research stemming from this study may provide strategies that will enhance professional leadership, as well as influence administrators, faculty, and students toward continued growth that will drive the fields of Speech-Language Pathology, Speech and Hearing Science, and Audiology successfully into the future.

## REFERENCES

- Adams, J. C. (2015). *Accreditation as an organizational response: Exploring the influence of leadership and institutional and task environments on the accreditation process in communication sciences and disorders programs* (Order No. 3717943). Available from ProQuest Dissertations & Theses Full Text. (1711788342).
- ASHA. (2002). *Crisis in the discipline: A plan for reshaping our future*. Joint Ad Hoc Committee on the Shortage of PhD Students and Faculty in Communication Sciences and Disorders. Retrieved from [www.asha.org](http://www.asha.org).
- ASHA. (2008). Report of the 2008 Joint Ad Hoc Committee on PhD Shortages in Communication Sciences and Disorders. Retrieved from [www.asha.org](http://www.asha.org)
- ASHA. (2016a). CSD Education Survey: 2015-2016. From the joint committees of the Council of Academic Programs in Communication Sciences and Disorders and the American Speech-Language-Hearing Association. Retrieved from [www.asha.org](http://www.asha.org).
- ASHA. (2016b). 2014 Standards and Implementation Procedures for the Certificate of Clinical Competence in Speech-Language Pathology. Retrieved from [www.asha.org](http://www.asha.org).
- Auten, M. A. (2013). *Helping educators foster a growth mindset in community college classrooms* (Order No. 3591125). Available from ProQuest Dissertations & Theses Full Text. (1433826257).
- Bandura A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bennett, J.B. (1998). *Collegial professionalism the academy, individualism, and the common good*. Phoenix, AZ: American council on Education & Oryx Press.
- Blackwell, L.S. (2002). *Psychological mediators of student achievement during the transition to junior high school: The role of implicit theories* (Doctoral Dissertation). Retrieved from ProQuest (3048094).
- CAA. (2017). Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language Pathology. Council on Academic Accreditation for Audiology and Speech-Language Pathology. Retrieved from [www.asha.org](http://www.asha.org).
- Chan, C.K.Y., Fong, E.T.Y., Luk, L.Y.Y., Ho, R. (2017). A review of literature on challenges in the development and implementation of generic competencies in higher education curriculum. *International Journal of Educational Development*, 57, 1-10.
- Claro, S., Paunesku, D., & Dweck, C. S. (2016). Growth mindset tempers the effects of poverty on academic achievement. *Proceedings of The National Academy of Sciences of the United States of America*, 113(31), 8664-8668. doi:10.1073/pnas.1608207113



- Cook, D. A., & Artino, A. R. (2016). Motivation to learn: an overview of contemporary theories. *Medical Education*, 50(10), 997-1014. doi:10.1111/medu.13074
- Council of Academic Programs in Communication Sciences and Disorders. (2016). 2016 Salary Survey. Retrieved from <http://www.capcsd.org/salariesurvey.html>.
- Creswell, J.W. 2014. *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed). Thousand Oaks, CA: Sage Publications.
- Cross, K.P. (1981). *Adults as learners: Increasing participation and facilitating learning*. Jossey-Bass: New York, NY.
- Csikszentmihalyi, Mihaly (2014). *Flow and the Foundations of Positive Psychology: The Collected Works of Mihaly Csikszentmihalyi*. Dordrecht: Springer.
- Day, D.V. (2012). The nature of leadership development. In Day, D.V., & Antonakis, J. (Eds.). *The nature of leadership* (2<sup>nd</sup> ed) (108-140). Thousand Oaks, CA: Sage.
- Duckworth, A. (2016). *Grit: The power of passion and perseverance*. New York, NY: Scribner.
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 92(6), 1087-1101.
- Dweck, C.S. (1999). *Self-theories: Their role in motivation, personality, and development*. Philadelphia, PA: Psychology Press.
- Dweck, C.S. (2006). *Mindset: The new psychology of success* (2<sup>nd</sup> ed.). New York, NY: Penguin Random House.
- Dweck, C.S., & Henderson, V.L. (1989). Theories of intelligence: Background and measures. Paper presented at the Biennial Meeting of the *Society for Research in Child Development*. Kansas City, MO. April 27-30, 1989.
- Dweck, C.S., & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256-273.
- Fenwick, T., & Edwards, R. (2014). Networks of knowledge, matters of learning, and criticality in higher education. *Higher Education*, 67, 35-50.
- Folkins, J.W. (2016). Perspectives on the teaching of pedagogy to doctoral students. *Perspectives on Issues in Higher Education*. American Speech-Language-Hearing Association. 57-63.
- Ford, ME. (1992). *Motivating humans: Goals, emotions, and personal agency beliefs*. Newbury Park, CA: Sage Publications.

- Gardner, H. (1993). *Multiple intelligences: Theory in practice*. New York, NY: Basic Books.
- Gillam, R.B., & Hewitt, L.E. (2017). ASHA Report: *PhD Programs in Communication Sciences and Disorders: Innovative Models and Practices of PhD Education*. Retrieved from [www.asha.org](http://www.asha.org).
- Ginsberg, S.M. (2010). Getting to the scholarship of teaching and learning: Professional development in university faculty. *The ASHA Leader*. American Speech-Language-Hearing Association. 15, 14-17. doi:10.1044/leader.FTR2.15102010.14
- Green, L.W., & Glasgow, R.E. (2006). Evaluating the relevance, generalization, and applicability of research: issues in external validation and translation methodology. *Evaluation and the Health Professions*, 29(1), 126–153.
- Hanson, J., Bangert, A., & Ruff, W. (2016a). Exploring the relationship between school growth mindset and organizational learning variables: Implications for multicultural education. *Journal of Educational Issues*. 2 (2), 222-243.
- Hanson, J., Bangert, A., & Ruff, W. (2016b). A validation study of the What's My School Mindset survey. *Journal of Educational Issues*. 2 (2), 244-266.
- Hinsdale, M.J. (2015). *Mutuality, mystery, and mentorship in higher education*. Rotterdam, Netherlands: Sense Publishers.
- Hochanadel, A., & Finamore, D. (2015). Fixed and growth mindset in education and how grit helps students persist in the face of adversity. *Journal of International Education Research*. 11 (1), 47-50.
- Horn, J.L., & Cattell, R.B. (1966). Refinement and test of the theory of fluid and crystallized intelligence. *Journal of Educational Psychology*, 57, 253-270.
- Hull, R. H., & Coufal, K. (2009, June 16). An innovative approach to the PhD. shortage: Wichita State University offers grants, forms partnerships with Fort Hays University. *The ASHA Leader*.
- Kezar, A.J., & Eckel, P.D. (2002). The effect of institutional culture on change strategies in higher education: Universal principles or culturally responsive concepts? *The Journal of Higher Education*, 73, 435-460.
- Knowles, M.S., Holton III, E.F., & Swanson, R.A. (2015). *The adult learner: The definitive classic in adult education and human resource development*. New York, NY: Routledge.
- Leggett, E.L., & Dweck, C.S. (1986). Individual differences in goals and inference rules: *Sources of causal judgments*. Unpublished manuscript.

- Madison, C. L., Guy, B., & Koch, M. (2004). Pursuit of the speech-language pathology doctorate: Who, why, why not. *Contemporary Issues in Communication Sciences and Disorders*, 31, 191–199.
- Martin, A. J. (2015). Growth approaches to academic development: Research into academic trajectories and growth assessment, goals, and mindsets. *British Journal of Educational Psychology*, 85(2), 133-137. doi:10.1111/bjep.12071.
- McCrea, E., & Ginsberg, S. M. (2009, April). What is the scholarship of teaching and learning (SOTL)? What resources has ASHA developed for faculty in communication sciences and disorders? Retrieved April 14, 2009 from [www.asha.org/academic/questions/SOTL](http://www.asha.org/academic/questions/SOTL).
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.
- Schwandt, T.A. (2007). *The Sage Dictionary of Qualitative Inquiry* (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage Publications.
- Seligman, Martin (1990). *Learned optimism: How to change your mind and your life*. Free Press.
- Seymour, P.J., Jackson, C.A., Sinclair, J.S., Weber, E.G., & Wilding, M.K. (2016). Mentoring in all directions: Influence and focus throughout the department. *Perspectives on Issues in Higher Education*. American Speech-Language-Hearing Association. 48-55.
- Simon, M. K. (2011). *Dissertation and scholarly research: Recipes for success* (2011 Ed.). Seattle, WA: Dissertation Success, LLC.
- Smith-Olinde, L., & Ellis, S.K. (2018). Pedagogical education practices in communication sciences and disorders PhD programs: A pilot study. *Teaching and Learning in Communication Sciences & Disorders*. 2 (1), 5.
- Tesch, R. (1990). *Qualitative research: Analysis types and software tools*. New York: Falmer.
- Thompson, S. E., & Couto, R. A. (2016). Creating problem-based leadership learning across the curriculum. *New Directions for Higher Education*, 174, 35-44. doi:10.1002/he.20187.
- van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. London, Ontario: The State University of New York.
- Visser, B. A., Ashton, M. C., & Vernon, P. A. (2006). Beyond g: Putting multiple intelligences theory to the test. *Intelligence*, 34(5), 487–502.
- Wagner, S.L. (2014). *How principals operationalize their beliefs in the school setting* (Doctoral Dissertation). Retrieved from ProQuest (3690854).
- Wright-Harp, W., & Cole, P.A. (2008). A mentoring model for enhancing success in graduate education. *Contemporary Issues in Communication Science and Disorders*. 35, 4-16.

- Yeager, D.S., & Dweck, C.S. (2012). Mindsets that promoted resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, 47(4), 302-314.
- Yeager, D. S., Romero, C., Paunesku, D., Hulleman, C. S., Schneider, B., Hinojosa, C., & ... Dweck, C. S. (2016). Using design thinking to improve psychological interventions: The case of the growth mindset during the transition to high school. *Journal of Educational Psychology*, 108(3), 374-391. doi:10.1037/edu0000098.
- Yeager, D., & Walton, G. (2011). Social-psychological interventions in education: They're not magic. *Review of Educational Research*, 81(2), 267-301. doi:10.3102/0034654311405999.

## APPENDIX A: IRB APPROVAL



**Office of Research Integrity**  
Institutional Review Board  
One John Marshall Drive  
Huntington, WV 25755

FWA 00002704

IRB1 #00002205  
IRB2 #00003206

September 27, 2018

Ronald Childress, EdD  
Leadership Studies, COEPD

RE: IRBNet ID# 1307233-1

At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Childress:

**Protocol Title:** [1307233-1] Exploration of Growth Mindset Application in Communication Sciences and Disorders

**Site Location:** MUGC

**Submission Type:** New Project

APPROVED

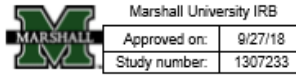
**Review Type:** Exempt Review

In accordance with 45CFR46.101(b)(2), the above study was granted Exempted approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Designee. No further submission (or closure) is required for an Exempt study **unless** there is an amendment to the study. All amendments (including the addition of research staff) must be submitted and approved by the IRB Chair/Designee.

This study is for student Kelly Rutherford.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Bruce Day, ThD, CIP at 304-696-4303 or day50@marshall.edu. Please include your study title and reference number in all correspondence with this office.

## APPENDIX B: PARTICIPANT LETTER



### Informed Consent to Participate in a Research Study

#### EXPLORATION OF GROWTH MINDSET APPLICATION TO PROGRAM DEVELOPMENT INITIATIVES IN COMMUNICATION SCIENCES AND DISORDERS

**Ron Childress EdD, Principal Investigator and Kelly Rutherford ABD, Co-Investigator**

Dear (participant),

My name is Kelly Rutherford and I am a doctoral student in the Leadership Studies EdD Program at Marshall University in Huntington, WV. I am currently working on my dissertation and am contacting you to request your participation in a research study to explore the feasibility of applying Carol Dweck's Growth Mindset framework to selected challenges faced by speech-language pathology education programs. A study abstract is attached.

You were selected for inclusion in this study based on your role as either a graduate program director or department chair in a speech-language pathology master's program. This study has been approved by the Marshall University Institutional Review Board.

Specifically, I am requesting your participation in a semi-structured interview. The interview will focus on ways Dweck's Growth Mindset Model may be applied to selected Standards for Accreditation of Graduate Education Programs in Audiology and Speech-Language Pathology (CAA, 2017) to potentially address some challenges in the field of Communication Sciences and Disorders. Time frame for participation is confined to the interview process and should last approximately 45-60 minutes. The success of this study is dependent on the willingness of professionals such as yourself to share their experiences and insights.

There are no known risks involved with participating in this study. Your consent and that you are at least 21 years of age are implied by your willingness to be interviewed. Participation is completely voluntary and there are no penalties or loss of benefits if you chose not to participate. You may also choose not to answer any question included in the interview protocol. Data collection will occur through audio recording of all interviews. Once participants have been established, one-on-one interviews will occur with the participants either online or in person and the interview will be recorded on a secure device. Following initial data collection, interviews will be transferred to a safe computer and erased from the voice recording app used. The information you supply is confidential and no individual or institution will be identified by name or other identifying information. If you agree to participate in this study, please respond to this email and indicate your intent. Your response will be saved as a study artifact indicating consent. You can expect to be contacted by the Co-Investigator within a week of your response to set up a date and time for your interview.

For questions about this study, you may contact Kelly Rutherford at 304-696-2982 or [davis139@marshall.edu](mailto:davis139@marshall.edu). Alternately, you may contact Ronald Childress EdD (PI) at 304-545-0245 or [rchildress@marshall.edu](mailto:rchildress@marshall.edu). If you have any questions concerning your rights as a research participant, you may contact the Marshall University Office of Research Integrity at 304-696-4303.

Thank you in advance for your willingness to consider participating in this study. Study findings will be shared with all participants.

*Kelly Rutherford*

Kelly Rutherford ABD, CCC-SLP  
304-696-2982  
[davis139@marshall.edu](mailto:davis139@marshall.edu)

## APPENDIX C: INTERVIEW PROTOCOL

### EXPLORATION OF GROWTH MINDSET APPLICATION TO PROGRAM DEVELOPMENT INITIATIVES IN COMMUNICATION SCIENCES AND DISORDERS

Ron Childress EdD, Principal Investigator and Kelly Rutherford ABD, Co-Investigator

#### INTERVIEW PROTOCOL

##### Growth mindset Beliefs in CSD Programs

Name: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

Pre-Interview Script:

Thank you for agreeing to participate in this interview. As a reminder, this research is being conducted through the Marshall University College of Education and Professional Development (MUCOEPD) to explore the feasibility of applying Carol Dweck's growth mindset framework to selected challenges faced by speech-language pathology education programs. The information you provide will be integrated with that of other interviewees and confidentiality will be maintained at all times. Participation is completely voluntary, and you can elect to stop participating at any time.

As a department chair or graduate program director for a communication sciences and disorders program, you are in the optimal position to speak to the ideas of department mindset, accomplishment of accreditation standards, and barriers to each.

Of note, the following are definitions to keep in mind throughout the interview:

Growth mindset: A belief that "...your basic qualities are things you can cultivate through your efforts, your strategies, and help from others." This can be appreciated as a product of Incremental Theory of Intelligence – the theory that intelligence is a "...dynamic quality that can be increased." This may also be referred to as malleable intelligence. (Dweck, 1999, p.20; Dweck, 2016, p.7)

Fixed Mindset: A belief that "...your qualities [i.e. intelligence] are carved in stone." This can be appreciated as a product of Entity Theory of Intelligence – the theory that intelligence is a "...fixed, concrete internal entity...." Components of fixed mindset create the barriers to growth mindset. (Dweck, 1999, p.20; Dweck, 2016, p.6)

## Growth versus Fixed Mindset

<b>Growth Mindset Beliefs</b>	<b>Fixed Mindset Beliefs</b>
Intelligence is dynamic and can be developed; it is not fixed, or static.	Intelligence is static and cannot be changed or developed.
Belief in intelligence malleability leads to a desire to learn.	Desire to be perceived as smart by others.
Intelligence malleability causes people to embrace changes.	Tendency to avoid challenges.
Intelligence malleability causes people to persist in the face of setbacks.	Tendency to get defensive or give up easily.
Intelligence malleability allows us to see effort as the path to mastery.	Perceives effort as fruitless.
Intelligence malleability allows us to learn from criticism.	Ignores useful negative feedback.
Intelligence malleability allows us to find lessons in the success of others.	Feels threatened by the success of others.

(adapted from Holmes' illustration, in Dweck, 2006, p. 263)

I hope to learn from your experiences and am interested in your ideas for how to face current challenges in our field. I anticipate the interview will take approximately 45-60 minutes. As a reminder, audio recording of this interview will occur. Following initial data collection, interviews will be transferred to a safe computer and erased from the voice recording app used. The information you supply is confidential and no individual or institution will be identified by name or other identifying information.

*\*The interviews will be conducted with the following questions as the core content to be targeted; however, wording of questions may be adjusted, and follow-up questions may be added to gather more robust information as is typical for exploratory studies.*

### Interview Questions

#### General Demographics

1. Male / Female / Other
2. Age: 26-35 / 36-45 / 46-55 / 56-65 / 66+
3. What is your title/position?
4. How long have you held the position?
5. Have you held any other administrative positions prior to this appointment?



## **I. Embrace changes and finding lessons in the success of others**

A willingness to embrace changes and an ability to find lessons in the success of others are markers of a growth mindset. Examples of application for these principles include actions demonstrating that a goal should allow a person to expand their skills and knowledge (not dependent on innate talent) and holding paramount that our mission is to develop student's potential.

- a. Describe how embracing changes and finding lessons in others' success may contribute to
  - a. faculty support of student development;
  - b. meeting expectations of the institution; and
  - c. continuation of faculty members' professional development.
  
- b. Describe how embracing changes and finding lessons in others' success may
  - a. contribute to curricular development that insures students meet "Professional Practice Competencies" and understand "Foundations of Speech-Language Pathology Practice";
  - b. may assist in program planning, organization, and review of curriculum practices; and
  - c. may promote curricular acknowledgement of diversity and responsible use of research.
  
- c. Describe how embracing changes and finding lessons in others' success may
  - a. assist programs in making accommodations and recommendations for students;
  - b. may guide intervention when program expectations are not met; and
  - c. may insure regular advising and open communication about progress.

## **II. Persistence in the face of setbacks and ability to learn from criticism**

Persistence in the face of setbacks and ability to learn from criticism are markers of a growth mindset. Examples of application for these principles are in dissemination of process feedback, use of coaching to promote engagement and success, and a requirement of full effort – as opposed to error-free learning.

- a. Describe how persistence in the face of setbacks and an ability to learn from criticism may contribute to
  - a. faculty support of student development;
  - b. meeting expectations of the institution; and
  - c. continuation of faculty members' professional development.
  
- b. Describe how persistence in the face of setbacks and an ability to learn from criticism may
  - a. contribute to curriculum development that insures students meet “Professional Practice Competencies” and understand “Foundations of Speech-Language Pathology Practice”;
  - b. may assist in program planning, organization, and review of curriculum practices; and
  - c. may promote curricular acknowledgement of diversity and responsible use of research.
  
- c. Describe how persistence in the face of setbacks and an ability to learn from criticism may
  - a. assist programs in making accommodations and recommendations for students;
  - b. may guide intervention when program expectations are not met; and
  - c. may insure regular advising and open communication about progress.

### **III. Belief in dynamic intelligence, desire to learn, and belief that effort is the path to mastery**

A belief that intelligence is dynamic, coupled with a desire to learn and a belief that effort is the path to mastery, is hallmark to the philosophy of growth mindset. Examples of application for these beliefs include delivering praise for the process, rather than the trait of an individual, teaching flexibility, and demonstrating intrigue in the learning process. In other words, strategy use, effort, and choices should be praised over talent.

- a. Describe how belief in dynamic, or malleable, intelligence may contribute to
  - a. faculty support of student development;
  - b. meeting expectations of the institution; and
  - c. continuation of faculty members' professional development.
  
- b. Describe how belief in dynamic, or malleable, intelligence may
  - a. contribute to curriculum development that insures students meet "Professional Practice Competencies" and understand "Foundations of Speech-Language Pathology Practice";
  - b. may assist in program planning, organization, and review of curriculum practices; and
  - c. may promote curricular acknowledgement of diversity and responsible use of research.
  
- c. Describe how belief in dynamic, or malleable, intelligence may
  - a. assist programs in making accommodations and recommendations for students;
  - b. may guide intervention when program expectations are not met; and
  - c. may insure regular advising and open communication about student progress.

#### **IV. Future Application**

Again, the definition of Growth mindset is a belief that "...your basic qualities are things you can cultivate through your efforts, your strategies, and help from others (Dweck, 1999, p.20; Dweck, 2016, p.7)." This interview focused on Growth mindset from three angles:

1. belief in dynamic intelligence, desire to learn, and belief that effort is the path to mastery;
2. persistence in the face of setbacks and ability to learn from criticism;
3. embrace changes and finding lessons in the success of others.

Considering the three categories of Growth mindset explored, please respond to the following:

- A. Discuss the feasibility (including both facilitators and barriers) of using a Growth mindset framework in the program's future faculty development projects.
- B. Discuss the feasibility (including both facilitators and barriers) of using a Growth mindset framework in the program's future curriculum initiatives and practices.
- C. Discuss the feasibility (including both facilitators and barriers) of using a Growth mindset framework in the program's future student development initiatives and instructional practices.
- D. Discuss the likelihood (including both facilitators and barriers) of using a Growth mindset framework in encouraging students to pursue doctoral degrees.

**THANK YOU SO MUCH FOR YOUR TIME AND WILLINGNESS TO PARTICIPATE IN THIS STUDY!**

## APPENDIX D: CROSS ANALYSIS OF FINDINGS

Table 12

### *Cross Analysis of Findings*

Faculty				Curriculum				Students			
Personal Belief Systems	Influence of the Leader*	Flexibility*	Outcome-oriented Practice	Lessons from the successes (and failures) of others	Influence of the Leader*	Student-centered Decision-making	Flexibility in Curricular Development*	Frequent Broad-scale Assessment Should Occur	Faculty Openness to Accommodation	Intervention Planning Models	Advising and Mentorship
Desire to learn should be natural faculty.	Beliefs of the leader may influence faculty practices.	Faculty flexibility supports program growth.	Success often comes from the meshing of creativity and necessity.	Reflection on the successes and failures of others can initiate positive change	Role of a leader in setting the tone for curricular change	The relationship between curriculum and student engagement	Flexible curricular development allows for modernization	Students should be monitored regularly	Willingness to implement accommodations	Planning for intervention should be hierarchal, transparent and fair	Open communication and mentorship may benefit the student-faculty relationship
Faculty role fulfillment as a developmental process.	A leader's role in motivating faculty.	The relationship between flexibility and collaboration.	Faculty mindset may influence student engagement and outcomes.	Competence curriculum and professionalism instruction as parts of a whole	Role of a leader in determining curricular implementation	The benefit of student-centered decision-making	Curricular development should include intentional diversity initiatives	Documentation is essential to keep faculty and students accountable for their roles	Normalizing accommodations may help to alleviate the stigma	Faculty acceptance of intervention models has evolved over time	A humanistic approach to advising is optimal
Faculty accomplishment may enhance intrinsic motivation.	Feedback as a mechanism for growth.	Continued faculty learning as driven by mindset.			Curricular feedback and growth opportunities			Regular advising and an open-door policy are optimal	The relationship between mindset beliefs and accommodation practice	Interventions should be individualized	Advising may be an optimal time to guide a student in shifting her mindset
	Leader honesty and transparency create an environment of support.	The relationship between flexibility, effort and resilience.							Faculty flexibility may help with success of accommodation	Interventions should maintain high quality standards	

\*Asterisks indicate themes that emerged under more than one domain.

## **APPENDIX E: CURRICULUM VITAE**

### **Vita**

**Kelly Rutherford**  
Marshall University  
Communication Disorders  
Email: davis139@marshall.edu

### **Education**

Edd, Marshall University, Anticipated graduation May 2019.  
Major: Leadership Studies

MS, Marshall University, 2004.  
Major: Communication Disorders

BS, Marshall University, 2002.  
Major: Communication Disorders

### **Academic, Government, Military and Professional Positions**

#### **Professional**

Senior Speech Language Pathologist, Healthsouth Rehabilitation Hospital of Huntington.  
(August 1, 2009 - August 8, 2014).

Speech Language Pathologist, Aegis Therapies. (June 15, 2008 - July 15, 2009).

Speech Language Pathologist, Healthsouth Rehabilitation Hospital of Huntington. (May 17, 2004 - June 5, 2008).

Speech Language Pathologist - PRN, Gentiva Home Health. (May 1, 2006 - March 1, 2007).

#### **Licensures and Certifications**

Speak Out Provider Certification, Parkinsons Voice Project. (August 2018 - Present).

Lee Silverman Voice Treatment Certification, LSVT. (July 11, 2018 - Present).

WV Speech Language Pathologist, WV Board of Examiners for SLP and Audiology.  
(March 25, 2005 - December 31, 2016).

ASHA Certificate of Clinical Competence, American Speech Language Hearing Association. (March 25, 2005 - December 31, 2015).

## **Professional Memberships**

Aphasia Access. (December 1, 2015 - Present).

West Virginia Speech Language and Hearing Association. (November 1, 2014 - Present).

American Speech Language Hearing Association. (March 25, 2005 - Present).

## **Development Activities Attended**

Faculty Learning Community, "FLC: Inquiry-based Learning," Marshall University Center for Teaching and Learning, Huntington, WV, US. (September 10, 2018 - May 2019).

Continuing Education Program, "SpeakOut Training," The Parkinson's Voice Project, Huntington, WV, US. (July 2018 - August 2018).

Conference Attendance, "2018 iPad Conference on Teaching and Learning," Center for Teaching and Learning, Huntington, WV, USA. (August 14, 2018).

Continuing Education Program, "Lee Silverman Voice Therapy - LSVT Loud," LSVT Global, Huntington, WV, US. (May 2018 - July 11, 2018).

Continuing Education Program, "Select Papers from the 44th Annual Aphasiology Conference," American Speech-Language-Hearing Association, Huntington, WV, US. (January 2017 - January 4, 2018).

Conference Attendance, "American Speech-Language-Hearing Association Convention 2017," ASHA, Los Angeles, CA, USA. (November 8, 2017 - November 11, 2017).

Continuing Education Program, "Videostroboscopy with Interpretation," Vanderbilt Medical Center, Nashville, TN, US. (September 8, 2017 - September 9, 2017).

Conference Attendance, "2017 iPad Conference on Teaching and Learning," Center for Teaching and Learning, Huntington, WV, USA. (August 15, 2017).

Continuing Education Program, "The MBSImp: An Evidence Based Protocol to Standardize Dysphagia," Huntington, WV, US. (October 2016 - January 31, 2017).

Conference Attendance, "2016 iPad Conference on Teaching and Learning," Center for Teaching and Learning, Huntington, WV, USA. (August 16, 2016).

Conference Attendance, "American Speech-Language-Hearing Association Convention 2015," ASHA, Denver, CO, USA. (November 11, 2015 - November 13, 2015).

Conference Attendance, "2015 iPed Conference on Teaching and Learning," Center for Teaching and Learning, Huntington, WV, USA. (August 18, 2015).

Workshop, "NFO: Advising III: Informational Components," Center for Teaching and Learning, Huntington, WV, USA. (April 24, 2015).

Workshop, "NFO: Advising II: Relational Components," Center for Teaching and Learning, Huntington, WV, USA. (March 13, 2015).

Workshop, "NFO: Advising I: Conceptual Components," Center for Teaching and Learning, Huntington, WV, USA. (January 30, 2015).

Workshop, "NFO: Technology 102," Center for Teaching and Learning, Huntington, WV, USA. (November 12, 2014).

Conference Attendance, "Geriatric Retreat Immersion Training (GRIT)," WV Higher Education Policy Commission and the Robert C. Byrd Center for Rural Health at Marshall University, Joan C. Edwards School of Medicine, Daniels, WV, USA. (October 3, 2014 - October 5, 2014).

Workshop, "NFO: Technology 101," Center for Teaching and Learning, Huntington, WV, USA. (September 12, 2014).

Conference Attendance, "2014 iPed Conference on Teaching and Learning," Center for Teaching and Learning, Huntington, WV, USA. (August 19, 2014).

New Faculty Orientation, "New Faculty Orientation," Marshall University Center for Teaching and Learning, Huntington, WV, USA. (August 18, 2014).

## **TEACHING**

### **Teaching Experience**

#### **Marshall University**

CD 229, Anatomy and Physiology of the Speech and Hearing Mechanism, 5 courses.

CD 330, Acquired Communication and Swallowing Disorders, 6 courses.

CD 570, Clinical Practicum I, 1 course.

CD 625, Acquired Aphasia, 10 courses.

CD 630, Cognitive Communication Disorders, 10 courses.

CD 670, Advanced Clinical Practicum, 7 courses.

CD 691, Motor Speech and Swallowing Disorders, 1 course.

### **Non-Credit Instruction**

Co-facilitator for Community of Research Practice (CoRP), Department of Communication Disorders, 15 participants. (August 2015 - Present).



Guest Lecture, 50 participants. (September 26, 2018).

Marshall Academy of Rising Scientists - Lecturer, Marshall University, 50 participants. (June 12, 2018).

Guest Lecture, 50 participants. (October 20, 2017).

Guest Lecture, 31 participants. (June 1, 2017).

Guest Lecture, 36 participants. (February 17, 2017).

Guest Lecture, 50 participants. (November 4, 2016).

Guest Lecture, 50 participants. (September 9, 2015).

Guest Lecture, 36 participants. (March 11, 2015).

Guest Lecture, Mountwest Community and Technical College, 23 participants. (February 24, 2015).

Guest Lecture, 45 participants. (December 1, 2014).

Guest Lecture, 10 participants. (November 10, 2014).

### **Directed Student Learning**

Directed Individual/Independent Study, "Innovative Curriculum Design in Communication Sciences and Disorders," Communication Disorders. (August 2018 - Present).

Advised: Logan Payton, Kaitlin Hackworth

Directed Individual/Independent Study, "Innovative Curriculum Design in Communication Sciences and Disorders," Communication Disorders. (August 2017 - Present).

Advised: Mallory Newsome

Directed Individual/Independent Study, "Current Therapeutic Practices for Aphasia in Appalachia: Exploring Implementation of Life Participation Principles," Communication Disorders. (January 2018 - May 2018).

Advised: Allison Fisher

Directed Individual/Independent Study, "Current Therapeutic Practices for Aphasia in Appalachia: Exploring Implementation of Life Participation Principles," Communication Disorders. (January 2018 - May 2018).

Advised: Erin Boone, Cassidy Forth, Marina Bray

- Directed Individual/Independent Study, "Innovative Curriculum Design in Communication Sciences and Disorders," Communication Disorders. (August 2017 - May 2018).  
Advised: Logan Payton, Kaitlin Hackworth
- Directed Individual/Independent Study, "Current Therapeutic Practices for Aphasia in Appalachia: Exploring Implementation of Life Participation Principles," Communication Disorders. (August 2017 - December 2017).  
Advised: Allison Fisher
- Directed Individual/Independent Study, "Current Therapeutic Practices for Aphasia in Appalachia: Exploring Implementation of Life Participation Principles," Communication Disorders. (August 2017 - December 2017).  
Advised: Erin Boone, Cassidy Forth, Marina Bray
- Directed Individual/Independent Study, "Quality of Life in Caregivers of Persons with Dementia," Communication Disorders. (January 2017 - May 2017).  
Advised: Alison Wilkinson, Justin Whittington
- Directed Individual/Independent Study, "Quality of Life in Caregivers of Persons with Dementia," Communication Disorders. (January 2017 - May 2017).  
Advised: Erin Thevenin
- Directed Individual/Independent Study, "Communication Effects on Quality of Life in Caregivers of Individuals with Dementia," Communication Disorders. (August 2016 - May 2017).  
Advised: Erin Thevenin
- Directed Individual/Independent Study, "Innovative Curriculum Design in Communication Sciences and Disorders," Communication Disorders. (August 2016 - May 2017).  
Advised: Olivia Hughes
- Directed Individual/Independent Study, "Quality of Life in Caregivers of Individuals with Dementia," Communication Disorders. (August 2016 - December 2016).  
Advised: Allison Wilkinson, Justin Whittington
- Directed Individual/Independent Study, "Inquiry in Communication Disorders: Life Participation Approach to Aphasia," Communication Disorders. (January 2016 - May 2016).  
Advised: Allison Fisher, Anna Williams
- Directed Individual/Independent Study, "Enteral Nutrition in the Geriatric Population," Communication Disorders. (January 12, 2015 - May 2015).  
Advised: Erin Thevenin

## RESEARCH

### Published Intellectual Contributions

#### Other

Rutherford, K., Childers, C. L. (2017). The Power of Community for Post-TBI Life [Written Case]. 22, 30-32.

### Presentations Given

Rutherford, K., iPED 2018 Teaching Conference, "Growth mindset in Action: The responsibility of teachers in encouraging social emotional learning in their students," Marshall University Center for Teaching and Learning, Huntington, WV. (August 14, 2018).

Rutherford, K. J. (Presenter & Author), Thevenin, E. B. (Presenter & Author), Wilkinson, A. E. (Author Only), 2017 ASHA Convention, "When do Cognitive Differences Become a Concern? A population survey," American Speech-Language-Hearing Association, Los Angeles, CA. (November 10, 2017).

Rutherford, K., Childers, C. L., Hansen, R. (Presenter & Author), iPED 2017 Teaching Conference, "Integrating Civic Teaching and Learning Principles Related to Individuals with Disabilities into College Curriculum," Marshall University Center for Teaching and Learning, Huntington, WV. (August 15, 2017).

Rutherford, K., Childress, R. B., National Social Science Association - National Conference, "Student Perspectives on Graduate Advising and Advanced Study," Las Vegas, Nevada. (April 11, 2017).

Rutherford, K. (Author Only), Childers, C. L. (Author Only), Sayre, J. (Presenter & Author), WVSHA Annual Convention, "Brain Injury Group @ Marshall," West Virginia Speech-Language-Hearing Association, Bridgeport, WV. (March 31, 2017).

Rutherford, K. (Author Only), Thevenin, B. (Presenter & Author), Wilkinson, A. (Author Only), Whittington, J. (Author Only), WVSHA Annual Convention, "Quality of Life in Caregivers of Individuals with Dementia: The Impact of Communicative Breakdowns," West Virginia Speech-Language-Hearing Association, Bridgeport, WV. (March 31, 2017).

Rutherford, K. (Presenter & Author), WVSHA Annual Convention, "Making It Work! Functional Therapy for Aphasia," West Virginia Speech-Language-Hearing Association, Bridgeport, WV. (March 30, 2017).

Rutherford, K. J. (Author Only), Higgins, K. (Presenter & Author), Pruett, J. (Presenter & Author), Small, H. (Presenter & Author), Woodrum, A. (Presenter & Author),

- Coleman, C. (Presenter & Author), 2016 ASHA Convention, "When do Cognitive Differences Become a Concern? A population survey," American Speech-Language-Hearing Association, Philadelphia, PA. (November 17, 2016).
- Rutherford, K. (Presenter & Author), WVSHA Annual Convention, "Aphasia: Functional Communication - Therapeutic Techniques and Life Based Goal Setting," West Virginia Speech-Language-Hearing Association, Bridgeport, WV. (April 14, 2016).
- Thevenin, E. B. (Presenter & Author), Rutherford, K. J. (Presenter & Author), 2015 ASHA Convention, "The Effects of Percutaneous Endoscopic Gastrostomy Placements on Mortality in Patients with Advanced Dementia Diagnoses," American Speech-Language-Hearing Association, Denver, CO. (November 13, 2015).
- Childers, C. L. (Presenter & Author), Rutherford, K. (Author Only), Miluk, B. R. (Presenter & Author), WVSHA Annual Convention, "Brain Injury Group of WV - Huntington Program Implementation," West Virginia Speech-Language-Hearing Association, Bridgeport, WV. (April 17, 2015).
- Childers, C. L., Rutherford, K., WVSHA Annual Convention, "Patient-Centered Outcomes and The Coaching Model," West Virginia Speech-Language-Hearing Association, Bridgeport, WV. (April 15, 2015).

### **Awards and Honors**

- Award for Continuing Education, American Speech-Language-Hearing Association, Scholarship/Research, National. (November 2017).

### **Research Currently in Progress**

- "Aphasia Treatment: Professional Practices in Appalachia" (Planning).  
An exploration of how aphasia is treated by SLPs in Appalachia.
- "CTL 2018-2019 Hedrick Teaching Fellowship Faculty Learning Community on Inquiry Based Learning" (Planning).
- "Development, Implementation, and Maintenance of a TBI community group" (On-Going).  
Researchers are examining the process by which a community group for survivors of TBI is developed, implemented, and maintained. They will collect anonymous feedback from participants over a 12-month period to guide decision-making for the group.
- "Exploring Growth mindset Application in Communication Sciences and Disorders" (On-Going).

"Student Perspectives and Performance with an Integrative Learning Experience for Motor Speech Disorders" (On-Going).

This is a multi-layered research project that explores use of problem-based learning and inquiry in the classroom with the content of Motor Speech Disorders within the field of Communication Sciences and Disorders.

"Writing Skills Among Undergraduate Students in Communication Disorders" (On-Going).

Writing Skill Assessment and Development Explored.

"Writing Skills Among Undergraduate Students in Communication Disorders" (On-Going).

Writing Skill Assessment and Development Explored.

## **SERVICE**

### **Department Service**

Committee Chair, Continuing Education Committee. (April 2017 - Present).

Committee Member, Community Advocacy Council. (September 1, 2016 - Present).

Served as proctor for junior faculty learning to perform Flexible Endoscopic Evaluations of Swallowing. (October 2015 - Present).

Committee Member, Graduate Admissions Committee. (January 1, 2015 - Present).

Committee Member, Research Committee. (September 2014 - Present).

Faculty Mentor, New Faculty Mentor. (August 20, 2015 - August 2018).

Committee Member, Clinic Management Committee - Communication Disorders.  
(August 20, 2014 - August 2018).

Represented Communication Disorders on Green and White Day, Green and White Day Presenter. (April 16, 2018).

Speaker on behalf of Communication Disorders, Green and White Day Volunteer. (April 16, 2018).

Facilitator for Interdisciplinary care workshop with the COHP, School of Medicine, and School of Pharmacy. (January 30, 2018 - February 7, 2018).

Committee Member, Ad Hoc Committee for Clinic Renovations. (May 1, 2015 - December 31, 2015).

Committee Member, Clinical Faculty Search Committee. (April 2015 - July 2015).

Facilitator for Interdisciplinary care workshop with the COHP, School of Medicine, and School of Pharmacy. (February 2015).

### **College Service**

Committee Chair, Policy and Procedure Committee - College of Health Professions.  
(May 2018 - Present).

Committee Member, Policy and Procedure Committee - College of Health Professions.  
(August 20, 2014 - May 2018).

### **University Service**

BAPC Representative to Committee, Faculty Committee on Students with Disabilities.  
(October 2017 - Present).

BAPC representative, Academic Calendar Committee. (August 2017 - Present).

Committee Member, BAPC. (August 2017 - Present).

### **Public Service**

Program Organizer, Brain Injury Group of Huntington, Huntington, WV. (September 1, 2014 - Present).

### **Consulting**

For Profit Organization, Elizabeth Nicholson - King's Daughters Medical Center,  
Huntington, WV. (November 9, 2016 - November 10, 2016).

For Profit Organization, Rachel Compliment - HealthSouth Rehabilitation Hospital of  
Huntington, Huntington, WV. (August 2014 - August 2015).

Consultation regarding facility set up of procedures for Flexible Endoscopic Evaluation  
of Swallowing, Sara Clemins - Kingsbrook, Ashland, KY. (August 2014).