

Teaching and Learning Manifesto

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The primary aim of education is learning, and the imperative vehicle used to attain this objective is teaching (Prozesky, 2000). Naturally, an inseparable bond must exist between these two concepts; if teaching is effective, then learning will be accomplished, and if teaching is ineffectual, then learning will follow the same plight. This manifesto reflects my philosophy of teaching and learning, my experiences in learning and teaching to date, plans for formative learner assessment, a plan for learner assessment of my teaching and personal self-reflection, my ideal teaching positions in the future, and potential scholarly activities addressing current or future teaching activities.

Personal philosophy of teaching and learning

My teaching and learning philosophy is reflected by the Native American saying, "Tell me, and I'll forget. Show me, and I may not remember. Involve me, and I'll understand." Given the knowledge that I have gained, my approach to student education has shifted from an emphasis on my teaching to a more central focus on the student's learning experience and the holistic realization that the two are inseparable aspects of the same whole. My own learning experience has led me to develop a personally meaningful and grounded teaching philosophy that consists of a multitude of research-based practices deriving from learning paradigms of social cognitivism, cognitive constructivism, transformative learning theory, and reflective models of learning. Each of these theories or models helps shape assignments, activities, mind, brain, and education science, and pedagogical techniques that I will implement in a learning environment.

The first theory that resonates with me and will significantly impact my instruction is the social cognitive theory. Bandura declares that while environmental reinforcement has a role in shaping behavior, there are limitations in explaining behavioral change (Kay and Kibble, 2015).

He asserts that students learn through social interactions with others (Kay and Kibble, 2015); specifically, learning occurs when students observe the behavior of others. As Kay and Kibble point out, two important concepts of the social-cognitive perspective are modeling and observational learning (2015). Modeling occurs when a skilled mentor demonstrates a behavior or cognitive skill for a less capable individual. Kay and Kibble express that observational learning includes attention, retention, reproduction, and motivation (2015). Related to these concepts is the scaffolding process; Ambrose et al. assert that the scaffolding process occurs when instructors temporarily relieve some of the cognitive load so that the learner can focus on a particular aspect of the task (2010). Scaffolding occurs when the mentor provides successively less demonstration until students can perform target tasks independently (Ambrose et al., 2010).

As an instructor, I love the social cognitive learning orientation theory, as it allows learners to assimilate new information and assume new roles that require role-modeling, behavioral rehearsal, and attending to observed behaviors (Torre et al., 2006). This model somewhat mirrors the process of typical language development in children. As experts in our field, we know that typically developing children learn speech and interactive play skills by watching parents, caregivers, siblings, and peers perform these behaviors. Imitation of those around us is a crucial aspect of skill development because it allows us to learn new things quickly and efficiently; imitation becomes increasingly impactful when the models provided are intentional. This theory also resonates with me because, as Kay and Kibble assert, in this instance, the instructor provides opportunities and motivation for students to exhibit the desired behavior or to stop displaying the undesired behavior (2015).

The second theory that deeply resonates with me is cognitive constructivism. Ambrose et al. declare that when students can connect what they are learning to accurate and relevant prior

knowledge, they learn and retain more (2010). This theory buttresses student-centered teaching methods and techniques. As Berkley Graduate Division (n.d.) indicates, the role of the instructor is not to drill knowledge into students through repetition or to stimulate learning through rewards and punishments; instead, this theoretical model allows the instructor to provide imperative resources and guide learners as they attempt to incorporate new knowledge with old knowledge and modify the old to accommodate the new. Kay and Kibble assert the importance of instructors recognizing that each learner comes to the experience with diverse levels of prior knowledge, skill, and motivation, and these different levels have a significant impact on learning outcomes (2015). Inherent to this theory is the concept of active learning; Brame asserts that methods promoting active learning frequently require students to connect new and old information or confront misconceptions, which promotes student work identified as necessary by this theory (2016). In fact, Stanny points out that this theory has four primary characteristics: activation of prior knowledge, creation of surprise, application and evaluation of new knowledge, and reflection (n.d.).

From the vantage point of an instructor, the cognitive constructivism orientation theory stands out to me, as it allows the instructor to guide from the side during each step of the learning path. I am also drawn to this theory as prior knowledge is a significant factor in learning, and unless instructors engage all subsequent knowledge – the good, the bad, and the ugly – we will likely impair the new learning that we worked so hard to put into place. This theory gives the learner a chance to recall the event (i.e., a clinical encounter), reflect on what happened, summarize what was learned from this experience, and discuss what could have been done differently (Torre et al., 2006). The development of critical thinking through reflection is one of the most vital elements of the cognitivist learning orientation, according to Torre et al. (2006).

Reflection is a fantastic tool for helping students understand their strengths and limitations. Additionally, it is a way to move students away from the extrinsic reward/punishment mentality (i.e., the teacher's assessment of their work) to the intrinsic value of their own abilities.

Lastly, the cognitive constructivism orientation theory resonates with me because of my views of both how learning occurs and the environment in which it occurs. Honebein (1996, as cited in Mcleod, 2019) sums it up best by stating that learning is student-centered, as students determine how they will learn; it embeds learning socially, thus collaboratively; it encourages the use of multiple modes of delivery, and it encourages reflection and metacognition.

Another theory that resonates with me is the transformative learning theory. As Taylor and Hamdy point out, this theory explores how critical reflection can be used to challenge the learner's beliefs and assumptions (2013). Meizrow's theory of transformative learning provides for an experiential learning experience in which a student has a disorienting dilemma that leads the student to examine his or her own views (Taylor and Hamdy, 2013). The transformational process involves three steps: an event that causes one to question, context that considers personal, professional, and social aspects, in addition to, critical reflection (Taylor and Hamdy, 2013).

The transformative learning theory appeals to me because of the revelations that come to students during transformation. In this instance, the instructor's role is to facilitate the learners in their questioning and reflection on their assumptions of themselves and others. I also appreciate that critical thinking, perspective transformation in the affective domain, and leadership can be learned using this theory; each of these components is imperative for our discipline. Greenhill et al., utilizing clinical immersion models of clerkship rotations in hospital and community settings, observed over a four-year period that learners acquired insights in domains including self-

awareness, patient-centeredness, clinical skepticism, and enhanced understanding of diversity (2017).

Schon's reflections change models contemplate that reflection leads to an act, followed by transformation (Taylor and Hamdy, 2013). Reflection is a process that moves a learner from one experience to another with a deeper understanding of its relationships with and connections to other experiences and ideas; in essence, reflection is the thread that enables continuity of learning (Rodgers, 2002). The significant characteristics of reflective models include reflection and feedback, instruments that are central to developing knowledge and skills (Taylor and Hamdy, 2013).

The reflections change models' theories are alluring because of their impact across a broad spectrum of learners. For the novice learner, reflection with focused deliberate practice and constructive feedback results in improved performance, while for those who are already proficient, it provides an opportunity for improvement of their level of competence as well as the quality of outcomes (Chacko, 2018). This theory is also helpful in prompting students to become autonomous learners, and after their professional training is over, it helps these learners engage in continuing professional development (Chacko, 2018).

While the concepts in the aforementioned theories are instrumental in facilitating an optimal learning environment, Mind, Brain, Education (MBE) Science gives educators insights into the types of supports and interventions that might be most helpful for diverse learners. MBE Science provides a collaborative approach where researchers, utilizing contributions by instructors and students, create useful research evidence that can help shape learning situations (Fischer, 2009). The contributions from this collaborative effort give us an opportunity to improve teaching, thus providing a productive learning environment. In fact, many evidence-

based solutions compliment learning theories that are particularly meaningful to me, as they provide purposeful learning opportunities. The below illustrations consider student-centered learning approaches in light of mind, brain, and education research. While many of the MBE principles are meaningful to me, the principles and their application illustrated below provide a peek into how I plan to integrate certain MBE evidence-based principles into practice. The following illustrations are not exhaustive.

At the beginning of instruction, I will integrate assessments to collect data and establish students' knowledge and beliefs in order to ensure that each student's experiences are valued in the instructional and evaluation practices. It is imperative that instructors conduct this assessment in order to build on correct and pertinent knowledge, fill in the missing pieces, help students become aware when using erroneous knowledge, and revise understanding to form accurate and robust knowledge (Ambrose et al., 2010). Tokhama-Espinosa et al. also assert that regardless of the organizational patterns of how people learn, and the cognitive areas involved in learning, each person's brain is unique due to past experiences (2010). Thus, in order for instructors to make the most of a student's learning potential, instructors must consider the student's earlier life experiences to clarify the context in which they will approach new learning challenges (Tokhama-Espinosa et al., 2010).

It stands to reason that if an individual's brain is unique, then their learning preferences are also distinct. Thus, I envision using various modes of instruction delivery to meet the learning needs of a diverse student body. In fact, another compelling aspect of MBE that Tokhama-Espinosa et al. point out is that individuals use various modes for learning and diverse processing, depending on the learning framework (2010).

In creating a productive optimal educational setting that also enhances motivation, I will provide real-world tasks in as natural a context as possible; doing so facilitates memory processes, as they are embedded within real-life experiences (Tokhama-Espinosa et al., 2010). Further, Tokhama-Espinosa et al. assert that providing tasks in natural settings allows the user to truly learn the content instead of regurgitating facts without understanding the basis of those facts (2010). Ambrose et al. further point out that providing authentic, real-world tasks allows students to see the value of abstract concepts and theories while creating a motivating environment (2010). Immordino-Yang et al. express that allowing students to investigate and apply their learning through projects, discussions, and exhibitions, followed by constructive feedback, will deepen students' critical thinking skills and lead them to undertake more advanced problems (2018).

In creating my ideal learning environment, I plan to offer collaborative learning activities, as well as exploration and discovery in a group setting, followed by reflection and discussion for a deeper enhanced understanding, thereby enabling social interaction. Immordino-Yang et al. assert that when integrating this type of inquiry with scaffolding, opportunities for students to share their thinking and problem-solving strategies encourages participation as they learn (2018). Further, Barron and Darling-Hammond state that when students have the opportunity to teach each other through learning, that they can then reflect, evaluate, and revise their work, and they progressively take control of their own learning process (2008). Finally, Tokhama-Espinosa et al. maintain that a conscious effort to group learners of different levels can have a positive effect on everyone involved and capitalizes on the brain's social nature (2010).

To interact with my learners in a meaningful way, it is essential that I create a productive learning environment; thus, the use of pedagogical methods and techniques must be carefully

considered. I will design learning experiences that reflect adult learning principles to externally motivate students and initiate internal motivation by illuminating the relevance of the acquisition of evidence-based knowledge. I will first turn my attention to brief illustrations of pedagogies and how I intend to incorporate them into my instruction and then to metacognitive strategies, as I believe these strategies significantly enhance learning.

I envision having a diverse set of learners with skillsets of various stages. For learners that have not mastered a skill, I will use strategies to ensure mastery. As Ambrose et al. point out, to develop mastery, students must obtain component skills, practice assimilating them, and know when to apply them (2010). To ensure that a diagnosis of weak or missing skills is made correctly, I will decompose the task in order to pinpoint the areas that need development through targeted practice, as focused practice on key skills, each in isolation, has an impact on overall performance (Ambrose et al., 2010). I will assess the students' understanding of various components through observation. Upon identifying component skills that novice students' are missing, given the complexity of the task, I will provide explicit instructions and ask the students to perform the component skills in isolation multiple times so that the students will have adequate practice with each skill that needs work, thus reducing their cognitive load and allowing them to develop fluency with the skill before integrating multiple skills. Research reflects that students focusing on one skill at a time will reduce cognitive load and have a greater chance to develop fluency before completing the entire complex task (Ambrose et al., 2010). When providing practice intended to increase a particular skill, I will explain my rationale. This explanation will aid in the students' abilities to do the tasks easily and quickly. Additionally, I will provide an explicit explanation of the level of fluency that is expected.

Once students have practiced individual component skills, they will move to integrating these skills in practice. Research shows that it can be beneficial for instructors to lighten certain aspects of the task to relieve the cognitive load, using scaffolding so that students can focus on key skills while integrating (Ambrose et al., 2010). After integrating the skills successfully, the students will next move to applying the skills in multiple contexts. When needed, I will also provide minor prompts to help bolster the transferring of skills to new contexts. As students progress, I will use the prompts more sparingly, as research indicates that the instructor providing minor prompts can be instrumental in facilitating the transfer process (Ambrose et al., 2010). After this process, I will have discussions with students and ask questions about a particular skill or knowledge, and then I will ask the students to explain the context to which this skill or knowledge applies. To increase knowledge transfer, I will have weekly meetings with the students and ask questions that will aid the students in generalizing from the specific to the general or more abstract concepts. I will provide structured comparisons so that students can see the similarities and differences among particular problems or case scenarios.

I envision applying the social cognitive ideas of modeling and observational learning in my instruction. Torre et al. point out that for learners to acquire new knowledge or skills, it is critical that they imitate and reinforce the observed behavior (2006). I imagine providing workshops where student clinicians can team up and work in groups of two; within these small groups, they will be tasked to teach each other a skill or technique that they commonly use in therapy with patients. Research proposes that teaching is one of the best ways to learn (Frager and Stern, 1970). This will require each of them not only to model a skill or technique but also to sit in the observation seat. An important next step in this learning activity is to scaffold students' peer instruction. To avoid any misconceptions, I will mentor each small group with careful

thought. I will begin by providing a lot of scaffolding, but over time, I will reduce the support as students take the responsibility to learn on their own. This process will provide students with a sense of autonomy, and they will take ownership of their learning.

To interact in a meaningful way with the content, learners need opportunities to demonstrate their growth, learn from peers, and go beyond surface learning. Pedagogically, this can be achieved through active learning and cognitively challenging programs and contexts. I will incorporate active learning as part of my instruction, as it is yet another avenue to increase student engagement and provide students the opportunity to develop critical thinking and analytical skills. As Brame points out, an added benefit of active learning is evidence that active learning makes a learning environment more inclusive (2016). Further, Brame asserts, "the evidence that active learning approaches help students learn more effectively than transmissionist approaches in which instructors rely on 'teaching by telling' is robust and stretches back more than thirty years" (2016). I envision incorporating active learning in various contexts such as team-based, problem-based, and inquiry-based learning.

As an example, I can imagine designing learning activities that allow for students to confront misconceptions and reconstruct their knowledge based on correct information and more accurate understanding. Research has shown that prior knowledge will not aid learning if the existing knowledge is insufficient or inaccurate (Ambrose et al., 2010). Ambrose et al. further assert that misconceptions are difficult to refute because they have been reinforced over time across multiple contexts and include both accurate and inaccurate elements (2010).

I envision an instructional design for individuals, as well as opportunities for students to work together in groups, learning through real-world situational problem-solving. This will include activation of prior knowledge, creation of surprise, application and evaluation of new

knowledge, and reflective assignments. In activating prior knowledge, the learning activities will elicit prior knowledge that leads learners to engage cognitively and emotionally. New learning retention is improved if the knowledge is connected with existing knowledge (Ambrose et al., 2010). Next, I will provide activities that reveal any disconnect between prior knowledge and the demands of the current undertaking. When students experience this dissonance, it may motivate learning (Taylor and Hamdy, 2013). I will then provide multiple opportunities for students to apply the accurate new knowledge. According to Ambrose et al. replacing misconceptions with accurate knowledge requires the introduction of accurate knowledge, in addition to multiple opportunities for students to use it, as this will aid in removing deeply held misconceptions (2010). When completed as a group, these tasks will provide opportunities for students to give effective feedback to their peers while completing the assignment; in addition, I will provide feedback. Taylor and Hamdy assert that the feedback phase is potentially the most critical stage, as it allows the learner to articulate the new knowledge and assess it against what their peers and instructors think of the newly acquired knowledge (2013). Lastly, I will require students to reflect on their learning experience, asking students to explain what they learned, what they can now do because of this experience, how they did it, and why the activity is instrumental for their learning. Ambrose et al. express that it is imperative to give students an opportunity to reflect, as facilitating students' reflections with specific questions aids in motivation (2010). As an instructor, my desire is for students to develop a habit of utilizing reflection and self-assessment to evaluate their abilities when implementing a learned skill. By doing this, my hope is for students to establish lifelong practices of reflecting and assessing their work, which in return leads to growth.

Under my instruction, active learning activities will vary, but they will require learners to conduct higher-order thinking. While it may be implicit, metacognition often occurs and serves as a link between activity and learning (Brame, 2016).

I envision incorporating metacognition strategies to help students develop this important skill set. Research reflects that the processes of monitoring and controlling mutually affect each other; thus, metacognition takes the form of a cycle (Ambrose et al., 2010). This cycle consists of deciding: how to approach learning, how to apply the use of appropriate skills and strategies to solve a problem, how to monitor one's own comprehension and self-assessment, how to self-correct in response to the self-assessment, how to evaluate progress made in completing a task, and identifying distracting stimuli (Ambrose et al., 2010). Using this skill set appropriately will take individuals far in their gaining of knowledge and critical thinking skills.

When a student develops an in-depth understanding of their personal learning style and their strengths and weaknesses, the student can better determine the strategies that will work for him or her as well as when to use those strategies. Research suggests strategies that can be incorporated into instruction (Ambrose et al., 2010). Ambrose et al. provide some suggested strategies based on research that I plan to incorporate that are illustrated below (2010).

A suggestion from Ambrose et al. is to assess the task at hand (2010). In doing so, I will be as precise and clear regarding assignments so that students do not make assumptions that are not in line with my intentions; I will inform students of what I do not want regarding an assignment, asking students what they think they need to do for a particular assignment, and clearly articulating the criteria that will be used for assessment. Another research-based suggestion by Ambrose et al. is for the individual to evaluate his own strengths and weaknesses (2010). In evaluating one's own strengths and weakness, I envision providing early assessments

and timely feedback, as well as opportunities for practice tests. Ambrose et al. also assert that one must plan a suitable approach (2010). In this regard, I envision providing students a timeline for deliverables, asking students to provide a solution strategy, and potentially asking them to provide a plan of action for an assignment. Ambrose et al. bring another approach to the forefront, the application of strategies and monitoring of performance (2010). In applying strategies and monitoring performance, I will ask students to assess their work against a set of criteria and to write a reflection paper on a particular assignment. Lastly, Ambrose et al. assert that part of this process is reflection and adjustment of approach (2010). As such, again, I will ask for a reflection paper with an analysis of the student's own performance, give students multiple ways to approach a problem and provide assignments that focus on strategy. Lastly, I will show students how I will approach an assignment and take them through the phases of my metacognitive process.

Research shows that metacognitive skills can be taught to students to improve their learning (Nietfeld and Schraw, 2002; Thiede et al., 2003). As students become more proficient at using metacognitive strategies, they will gain more confidence and become more autonomous learners. Successful learners also have a repertoire of strategies to choose from and can transfer them to new settings. Thus, this skill set is instrumental in ensuring goal attainment. As Ambrose et al. point out, critical metacognitive skills "become more and more important at higher levels of education and in professional life as one takes on more complex tasks and greater responsibility for one's learning" (2010).

Regardless of the pedagogical approach, my philosophy encompasses recurring strategic themes, including collecting data about the students, modeling and observing, scaffolding, and being explicit about objectives and expectations. These themes focus on cognitive, motivational,

and developmental goals. As a pragmatist, I draw from best practices with a multi-theoretical approach to learning, thereby striving to be practical about what works best for a particular situation and for which student. I believe that it is imperative to evolve as an educator in order to address the ever-changing student, the diversity of environments, and the type of information that needs to be learned.

Teaching Biography

To date, my teaching experience has been informal, through conducting workshops, mentoring, teaching caregivers home activities, and providing poster presentations at conferences.

While working at the National Institutes of Health (NIH), National Cancer Institute Research Institute (NCI), I presented a poster on the development of a new circulating tumor cell platform and a third-generation next-generation sequencing technique for the discovery of oncogenic androgen receptor splice variants driving castrate-resistant prostate cancer. I presented the poster at the following establishments: The 7th DCEG Fellows Symposium, Division of Cancer Epidemiology & Genetics, NIH, Bethesda, MD on March 18, 2015; the CCR-FYI Colloquium, NIH, Shady Grove Campus, Bethesda, MD on March 23, 2015; the New England Science Symposium, Harvard University, Boston, MA on April 11, 2015; and Post-Bac Poster Day, at National Cancer Institute, NIH, Bethesda, MD on April 30, 2015. Additionally, while working at the NIH as an intern, I presented a poster on Therapeutic Vaccination with Epitope-Enhanced and Wild Type Tarp Peptides in Stage D0 Prostate Cancer at Poster Day in August 2011 at the NCI, NIH, in Bethesda, MD.

In April 2016, while attending Howard University, I provided the poster presentation, "Is There a Relationship Between Articulation and Ortho Dental Disorders?" at the poster session

during the National Black Association for Speech-Language and Hearing 2016 Convention in Virginia Beach. As part of a team, I worked on a research study to investigate whether there is a relationship between speech and orthodontic concerns. The charts of 100 dental patient records were reviewed to determine the incidence and prevalence of patients receiving orthodontic services that may have concomitant speech sound disorders and whether there is a relationship between ortho dental disorders and articulation disorders. I explored the incidence and prevalence of individuals with orthodontic disorders and concomitant speech sound disorders; the types of malocclusions that have the most speech sounds disorders; and the benefits of establishing collaborations between the disciplines of speech-language pathology and orthodontics.

After learning of the relationship between articulation and ortho dental disorders, while attending Howard University in April 2017, I presented the poster "What Types of Malocclusions are Associated with Speech Sound Disorders?" at the poster session during the National Black Association for Speech-Language and Hearing 2017 Convention, Atlanta, GA. As part of a team, I worked on a research study that examined the correlation between speech sound disorders and malocclusions; this study explored which malocclusions have common correlations with speech sounds disorders, and which speech sounds are most commonly affected as a result of these malocclusions. I reviewed charts of 100 dental patient records to determine the type of malocclusions that have the most common correlations with speech sounds disorders and the speech sounds most commonly affected by malocclusions. I explored the type of malocclusions that correlate with speech sounds disorders, speech sounds most commonly affected as a result of malocclusion, and speech sounds that should be assessed when providing collaborative screenings with orthodontists for clients presenting with malocclusions.

As a volunteer presenter, at the request of my mentor, I conducted two Speech-Language Pathology workshops in August and October 2018 in addition to February and April 2019 for educators who serve at-risk pre-K-12 children in Memphis, Tennessee. These professional development seminars provided teachers with techniques and tools that they can use to support children with autism and social pragmatic expressive and receptive language deficits in the classroom. I also provided training on how to create an effective referral process and gave pointers on including the appropriate stakeholders in the attainment of students' social, emotional, and academic goals. Lastly, I spoke to this audience about early intervention services.

During my clinical fellowship year to the present, I educate parents and caregivers who have children with autism as well as educational staff on appropriate treatment and play activities. I use various methods to educate this audience and am currently using teletherapy. Currently, before the session, I send small reading packets for parents to review before the session regarding the strategy. Next, I discuss the strategies, cues, and verbal prompts to use at home to elicit and increase receptive, expressive, and social-pragmatic skills in their children. I then provide these concepts in bite-size pieces so that it is not overwhelming and explain why the strategies are essential in mastering the child's goals. I model the behavior, and for the next session, I ask the parents to reproduce the desired behavior. Feedback is given after the activity unless it is absolutely essential during the session. After the session, I provide this learner group with positive reinforcement and constructive feedback on what went well in the session and elements that could go better, while also providing explicit directions as to how to correct any errors. I provide feedback as often as necessary until the learner group has mastered the skills, and lastly, I give this learner group feedback upon mastery.

When working with parents/caregivers who fall into the "less-than-motivated learners" category, when providing coaching, I open the discussion by asking what has happened at home since the last session. I then move the discussion to address any concerns the parents/caregivers may have, and I provide strategies for implementation at home. I provide these concepts in bite-size pieces so that it is not overwhelming and explain why the strategies are important in mastering the child's goals. Next, I model the behavior, ask the parents/caregivers to reproduce the desired behavior and provide timely, constructive feedback. Afterward, I allow the parents to reflect on what is happening between sessions. Lastly, I discuss with parents/caregivers what they learned through reflection and work with them as part of the team to resolve any problems.

These various teaching experiences have informed my personal philosophy in multiple ways. First, I know there are various ways to reach my target audience, and in the delivery of information, I must always be cognizant of my diverse learners. These experiences have also informed me that I must use various methods that appeal to different learning styles. Also, I must create a safe environment that is conducive to learning. In fact, scaffolding, goal-oriented practice, and feedback are important aspects that I should always keep in mind.

These experiences have also made me realize that providing students with opportunities to learn using real-life scenarios creates meaningful, lasting experiences that contribute to deep learning. Further, these experiences have given me greater insight into the key role that critical thinking through self-reflection plays in learning and intrinsic motivation. Lastly, it is imperative that I put the appropriate mechanisms in place for learning and mastering a skill, as learners become truly inspired and achieve a deeper understanding as they master a skill, reap the rewards, and learn by emulating their teachers via constructive feedback, and through reflection.

Assessment Plans

Research indicates that feedback is most impactful for learning when an instructor provides the learner with the distinct knowledge and skills that an instructor wants the individual to gain, and the information is provided promptly for the best use of feedback and linked to additional practice opportunities (Ambrose et al., 2010). Feedback is a critical aspect of learning, providing an excellent opportunity for teaching to take place. Given that feedback provides information to the student about his or her progress towards a particular goal, it can have a remarkable motivating impact (Ambrose et al., 2010).

Appropriate, timely, and constructive feedback will be provided as part of my instruction. I will view students' work for patterns of errors and will provide feedback using strategies including prioritizing feedback, balancing strengths and weaknesses in the feedback, and designing multiple activities for feedback.

In prioritizing feedback, I envision targeting the most important aspects of the assignment to avoid overwhelming students. A key element of prioritization centers around providing information to the student that is most useful for the central aspects of the assignment (Ambrose et al., 2010). Thus, I will offer feedback on a single component of the student's performance at a time.

Further, feedback should include a balance of strengths and weaknesses (Ambrose et al., 2010). Providing information about what the student is doing well is just as critical as communicating to the student any fallacies in the assignment (Ambrose et al., 2010). Both the deficient and superior elements are instrumental in keeping individuals engaged and motivated. This feedback will be provided with the goal of facilitating growth, increasing self-confidence, and motivating students to continuously improve their skills, and possibly to a lesser degree, to

decrease anxiety and fear. The feedback will be sensitive and shaped to each individual's personality to reflect a collegial relationship, acknowledge different learning styles, and recognize the student's efforts.

Lastly, I will provide multiple opportunities for feedback. Ambrose et al. also point out that goal-directed practice over multiple occasions must be coupled with targeted feedback to acquire the most significant learning gains (2010). I will also provide opportunities for feedback at the group level. Research shows that not all feedback has to be individual to be valuable (Ambrose et al., 2010). Therefore, I will also incorporate peer feedback. Ambrose et al. point out that with precise guidelines and standards, students can provide constructive feedback to each other (2010). I will explain my rationale for the feedback as well as how it should be provided, and I will incorporate reflection as part of my feedback. In fact, Ambrose et al. assert that students must specify how they used the feedback in subsequent work, given that feedback is most valuable when they have the opportunity to reflect and can effectively incorporate that input into future endeavors (2010).

I envision providing formative assessments to my students as given the environment I envision teaching in, these types of assessments are most appropriate. Research has shown that feedback is more successful when it sufficiently instructs students' subsequent practice, and they can incorporate it (Ambrose et al., 2010). Thus, frequent feedback is the nucleus of a formative assessment. I envision incorporating these types of assessments because of their beneficial qualities: these tools identify misconceptions, learning gaps, and struggles while providing the instructor ways to close these critical gaps (Trumbull & Lash, 2013 as cited in Yale Center for Teaching and Learning, n.d). In fact, formative assessments can help students take ownership. This type of assessment has many advantages, providing information for instructors to modify

their teaching, facilitating students in modifying their behaviors, and encouraging students' self-reflection (Baht and Baht, 2019). I envision providing formative assessments by including activities like providing in-class discussion, reflection-oriented writing assignments, group work emphasizing sharing and cooperation, and assessing students with individual development levels instead of comparing students to each other. Many of these types of formative assessment techniques help students develop positive attitudes towards instruction (Ozan & Kincal, 2018).

Learner assessment of my teaching and personal self-reflection

Research proposes that learning to teach, like the development of any other professional skill, requires acquiring knowledge but must also encompass feedback, and mechanisms to garner feedback are diverse and include conferences and videos, online videos, classroom observation, and peer evaluation (Gormally et al., 2014). Other mechanisms involve surveys that vary from pre-course surveys distributed during the first day of the first week of a course, to surveys given during the quarter, and finally, a survey provided after a specific group activity. Focus groups are another way to gain feedback (Gregg, 2016). Ambrose et al. also assert that timely and frequent feedback is important for setting appropriate goals for teaching, which may take the forms of early course evaluations, colleagues, and teaching center staff (2010).

I plan to engage in reflective teaching as instructors that engage in this behavior take the time to evaluate their own instruction, consider student feedback, and make the necessary revisions to enhance student learning. In fact, they make time to evaluate their own teaching practice, examine their curricular choices, consider student feedback, and make revisions to improve student belonging and learning (Yale Poorvu Center for Teaching & Learning, n.d.). Reflective teaching involves examining one's underlying beliefs about teaching and learning and one's alignment with actual classroom practice before, during, and after a course is taught (Yale

Poorvu Center for Teaching & Learning, n.d.). Self-reflection techniques that I can incorporate include pen and paper journals and peer observation comments, as research has shown that these modes have traditionally been used effectively (Prieto et al., 2019). Writing in a journal right after instruction will lead me to reflect on what worked, what did not, and what I can do differently in the future. Online discussions while working with peers may also foster self-reflection and may be supported by emails (Prieto et al., 2019). Other mechanisms to incorporate in my approach include teaching inventories that have been developed to aid in assessment of teaching approaches. Lastly, an assessment mechanism to incorporate is video recording.

Ideal teaching position for my future

The type of teaching situations and venues that most excite me are teaching as a supervisor of student clinicians or of clinicians during their clinical fellowship year in a private practice. Another venue that resonates with me is coaching parents of children with autism spectrum disorder (ASD). Lastly, I am invigorated by conducting presentations at conferences.

My approach to teaching will be multi-faceted. As mentioned in my teaching philosophy above, themes that will inform my teaching will include collecting data about the students, modeling and observing, scaffolding, and being explicit about objectives and expectations. These themes focus on cognitive, motivational, and developmental goals.

Depending on the venue, I envision providing instrumental resources to learners as they attempt to incorporate new knowledge with old knowledge and modify the old to accommodate the new knowledge. Depending on the audience's skillset, I envision using scaffolding, role modeling, and observation. I also envision using group exercises and serving as a facilitator. Additionally, upon using exercises to find out information about my diverse set of learners, I will determine the best pedagogical approaches to use. I believe some constant techniques will

include questions and answers, feedback, and finding out what motivates these learners. At times I may use techniques from Meizrow's theory of transformative learning for experiential learning experiences. Depending on the venue, I will provide multiple opportunities for practice, provide timely, focused, and constructive feedback, and provide an opportunity for critical reflection. I also will incorporate active learning in various contexts such as team-based, problem-based, and inquiry-based learning.

Scholarly activities for teaching and learning

Regarding scholarly activities for teaching and learning, a question that excites me is what innovative pedagogies have emerged and advanced student learning as a result of the pandemic? The pandemic has given many educational institutions, including those that are post-secondary, no choice but to shift to online teaching. Chick et al. assert that given the pandemic, university instructors are doing "pedagogical triage" (2020). Our discipline is no exception; thus, answering this question will be critical to ensuring that we are prepared for future pandemics or for any other emergency that may cause an institution to shift to online teaching and learning.

A second question that I ponder is how our discipline can close the gap between theory and therapy as bottlenecks persist when it comes to student learning? The desire to resolve bottlenecks and connect knowledge with practice has been an ongoing issue in our field. Although instructors strive to prepare graduate students for the clinical workplace, I believe pedagogical enhancements are still needed to address these important gaps, and the most significant benefit of addressing this gap will be producing clinicians who are better prepared for clinical engagement after their coursework is completed.

There are a variety of SoTL activities that are appropriate for my ideal teaching positions of providing poster presentations or workshops, serving as a supervisor for student clinicians as

well as students serving their clinical fellowship year, and providing training for patient family members or caregivers. These SoTL activities include providing poster presentations or workshops. I also envision the application of scholarship resulting in documented change; for example, I can work with community organizations to close the health disparity gap for children of color with ASD in underserved communities. I can also create scholarly materials such as a universal Speech-Language Pathology tool kit with a focus on ASD. I would like to explore the impact a culturally diverse ASD toolkit developed for SLPs could have on ASD intervention outcomes in underserved communities, in hopes that its use could help bridge the health disparity gap among ASD children in these communities. I would also like to assess whether the ASD toolkit expands clinicians' abilities to use culturally appropriate tools and to provide valuable resources, education, coaching, and mentoring to families of children with ASD and other stakeholders in these communities. Research demonstrates that underserved children of color in the United States are diagnosed later than Caucasian children, thus limiting their access to early intervention and lowering outcomes (Elder et al., 2016). Given that early diagnosis and early intervention can result in significant developmental progress, it is imperative that improvements are made regarding the speech pathologist's knowledge, strategies, and educational tools used in educating parents of children at risk for autism and stakeholders in private practice.

This manifesto has provided a look into my philosophy of teaching and learning, my experiences in learning and teaching to date, an elucidation of plans for formative learner assessments, a plan for learner assessment of my teaching and personal self-reflection, my ideal teaching positions in the future, and potential scholarly activities addressing current or future teaching activities. By following the principles I have outlined, I will grow as an instructor, but I have also surmised through writing this manifesto that I prefer to think about true instruction as

helping others to learn instead of teaching. I am beginning to think that the greatest gift I can bequeath to a learner is to develop a lifelong thirst for knowledge.

References

- Ambrose, S, Bridges, M., DiPietro, M., Lovett, M., and Norman, M. (2010). *How Learning Works: 7 Research-Based Principles for Smart Teaching*. San Francisco: Jossey-Bass.
- Berkley Graduate Division. (n.d.). *Cognitive Constructivism*. Graduate Student Instructor Teaching & Resource Center. <https://gsi.berkeley.edu/gsi-guide-contents/learning-theory-research/cognitive-constructivism/>
- Bhat, B., & Bhat, G. (2019). *Formative and Summative Evaluation Techniques for Improvement of Learning Process*.
- Barron, B. & Darling-Hammond, L. (2008). How can we teach for meaningful learning? In *Powerful Learning: What We Know about Teaching for Understanding*. Jossey-Bass.
- Brame, C. (2016). *Active learning*. Vanderbilt University Center for Teaching. Retrieved [November 22,2020] <https://cft.vanderbilt.edu/active-learning/>
- Chacko, T. (2018). Emerging pedagogies for effective adult learning: From andragogy to heutagogy. *Archives of Medicine and Health Sciences*, 6, 278.
https://doi.org/10.4103/amhs.amhs_141_18
- Chick, N., Friberg, J., Bessette, L. (2020). *What the Research Tells Us About Higher Education's Temporary Shift to Remote Teaching, What the Public Needs to Know from the SoTL Community*. <https://bit.ly/2wg6B3L>
- Elder, J.H., Brasher, S., Alexander B. (2016). *Identifying the Barriers to Early Diagnosis and Treatment in Underserved Individuals with Autism Spectrum Disorders (ASD) and Their Families: A Qualitative Study*. *Issues in Mental Health Nursing*, 37:6, 412-420, DOI: 10.3109/01612840.2016.115317

- Fischer, K.W. (2009). Mind, Brain, and Education: Building a Scientific Groundwork for Learning and Teaching. *Mind, Brain, and Education*, 3: 3-16. <https://doi.org/10.1111/j.1751-228X.2008.01048.x>
- Frager, S., & Stern, C. (1970). Learning by Teaching. *The Reading Teacher*, 23(5), 403-417. Retrieved November 29, 2020, from <http://www.jstor.org/stable/20196333>
- Gormally, C., Evans, M., & Brickman, P. (2014). Feedback about Teaching in Higher Ed: Neglected Opportunities to Promote Change. *CBE—Life Sciences Education*, 13(2), 187–199. <https://doi.org/10.1187/cbe.13-12-0235>
- Gregg, J. (2016). *Getting Feedback from Students: Activities*. UCLA Center for Education Innovation & Learning in the Sciences. <https://ceils.ucla.edu/wp-content/uploads/sites/2/2016/10/Strategies-for-Getting-Feedback-from-Your-Students.pdf>
- Greenhill, J., Richards, J. N., Mahoney, S., Campbell, N., & Walters, L. (2018). Transformative Learning in Medical Education: Context Matters, a South Australian Longitudinal Study. *Journal of Transformative Education*, 16(1), 58–75. <https://doi.org/10.1177/1541344617715710>
- Immordino-Yang, M. H., Darling-Hammond, L., Krone, Christina. (2018). *The Brain Basis for Integrated, Social, Emotional, and Academic Development*. National Commission on Social, Emotional, & Academic development. (downloaded from https://assets.aspeninstitute.org/content/uploads/2018/09/Aspen_research_FINAL_web.pdf?_ga=2.147786100.2142736456.1606693512-1442095418.1606693512 on November 21, 2020)

- Kay, D., & Kibble, J. (2016). Learning theories 101: application to everyday teaching and scholarship. *Advances in physiology education*, 40(1), 17–25.
<https://doi.org/10.1152/advan.00132.2015>
- McLeod, S. A. (2019). *Constructivism as a theory for teaching and learning*. Simply Psychology. <https://www.simplypsychology.org/constructivism.html>
- Nietfeld, J. L., Schraw, G. (2002). *The Effect of Knowledge and Strategy Explanation on Monitoring Accuracy*. *The Journal of Educational Research*, 95:3, 131-142, DOI: [10.1080/00220670209596583](https://doi.org/10.1080/00220670209596583)
- Ozan, C., & Kincal, R. Y. (2018). The effects of formative assessment on academic achievement, attitudes toward the lesson, and self-regulation skills. *Educational Sciences: Theory & Practice*, 18, 85–118. <http://dx.doi.org/10.12738/estp.2018.1.0216>
- Prieto, L. P., Magnuson, P., Dillenbourg, P., & Saar, M. (2020). Reflection for action: Designing tools to support teacher reflection on everyday evidence. *Technology, Pedagogy and Education*, 29(3), 279–295. <https://doi.org/10.1080/1475939X.2020.1762721>
- Prozesky D. R. (2000). Teaching and learning. *Community eye health*, 13(34), 30–31.
- Rodgers, C. (2002). Defining Reflection: Another Look at John Dewey and Reflective Thinking. *Teachers College Record - TEACH COLL REC*, 104, 842–866.
<https://doi.org/10.1111/1467-9620.00181>
- Taylor, D. C. M., & Hamdy, H. (2013). Adult learning theories: Implications for learning and teaching in medical education: AMEE Guide No. 83. *Medical Teacher*, 35(11), e1561–e1572. <https://doi.org/10.3109/0142159X.2013.828153>

- Thiede, K. W., Anderson, M. C. M., & Therriault, D. (2003). Accuracy of metacognitive monitoring affects learning of texts. *Journal of Educational Psychology*, 95(1), 66–73. <https://doi.org/10.1037/0022-0663.95.1.66>
- Tokuhama-Espinosa, T. (2010). *Mind, Brain, and Education Science: A Comprehensive Guide to the New Brain-Based Teaching*. New York: WW Norton & Company.
- Torre, D., Daley, B., Sebastian, J., & Elnicki, M. (2006). Overview of Current Learning Theories for Medical Educators. *Association of Professors of Medicine*, 119(10).
- Stanny, C. (n.d.). *Use Elements of Cognitive Constructivism to Design Effective Learning Activities*. BYU Center For Teaching and Learning. <https://ctl.byu.edu/tip/use-elements-cognitive-constructivism-design-effective-learning-activities>
- Yale Center for Teaching & Learning. (n.d.). *Formative and Summative Assessment*. Yale Center for Teaching and Learning. https://poorvucenter.yale.edu/sites/default/files/basic-page-supplementary-materials-files/formative_and_summative_assessment_handout.pdf
- Yale Poorvu Center for Teaching and Learning. (n.d.). *Reflective Teaching*. Yale Poorvu Center for Teaching and Learning. <https://poorvucenter.yale.edu/ReflectiveTeaching>