World View

All students deserve a high-quality education that comes from a place of collaboration (Haeseler, 2011). Collaboration comes in many forms inside and outside the classroom. When it comes to what is best for the development of children, it is not a disjointed relationship between classroom, school, and home expectations and culture (Haeseler, 2011; Isik-Ercan, 2010). Amaro-Jimenez (2016) explains that the most effective way to support students is to capitalize on families' Funds of Knowledge; the culture, language, experiences, and interactions that develop the students that enter a classroom setting. Understanding that children's development is multifaceted and dynamic, supported by the interconnected systems of family, school, and society (Haeseler, 2001) is vital to both parents and teachers to keep in the forefront of their mind when working with students. If there is incompatibility between the child and the environment, there is a risk of hindering development (Blandin, 2017), and this risk increases as more environments are introduced into children's lives. Building a supportive environment for students that integrates teacher and parent knowledge is vital when it comes to supporting students who are communicating non-verbally, and are on the Autism spectrum.

Approximately 15% of students in the United States have an identified disability (Lipkin, et al., 2015). In previous generations, educational power was placed solely in the hands of administrators and educators, but in 2001 with the passing of No Child Left Behind (2001) parents were mandated a 'place at the table' (Blandin, 2017; Turnbull 2005). Schools still actively identify, locate and evaluate students who may have a disability; this 'child find' system was put in place to ensure that all students receive a free and appropriate public education (FAPE) (Lipkin et al., 2015). When the No Child Left Behind (NCLB) Act passed in 2001, it

mandated that parents be provided opportunity to participate in their child's education, yet it was not until the Individuals with Disabilities in Education Act (IDEA) passed in 2004 that parent involvement guidelines were clearly defined (Blandin, 2017). According to IDEA, parents may request an evaluation of their child, at any time, to determine if their child is eligible for Special Education services, and must provide a signature to provide consent to the evaluation process (Turnbull, 2005). If a child is determined eligible for an Individualized Education Program (IEP), parents have the right to be present for the yearly team meeting, and contribute to the learning goals set during the meeting (Lo, 2012). IDEA also provides guidance and timelines for parents on how to handle a concern or disagreement within the IEP document, and provides mediation for parents to ensure all family concerns are validated (Turnbull, 2005). In present day schools, the relationship between parents and educators is developing due to the shift into mutual power of decision making and contribution (Martin & Hagan-Burke, 2002). Parents are their children's first teachers, and have legal precedence to advocate for the quality of education that their child receives (Byington & Whitby, 2011).

Philosophy

With two sides to every coin, the creation of a partnership between school and home requires both sides to contribute to provide the best possible developmental outcome for students. From an educator perspective, a study by Amaro-Jimenez (2016) revealed that many classroom teachers feel insufficiently prepared to collaborate with families due to language and cultural differences; yet it is the responsibility and duty of the educational professional to be the one that initiates home-school connection opportunities to 'level the playing field' for families

who have culturally and linguistically diverse (CLD) students. When students enter the classroom environment, teachers are encouraged to get to know students from an ecological perspective, taking into consideration all of the cultural and societal factors that impact each of the students in their care (Haessler, 2011). However, from the perspective of a parent who is raising a child who is non-verbally communicating, and on the Autism spectrum, school could be perceived as another item on the 'to-do list' (Haessler, 2011). McConkey et al. (2010) states that it is often parent concern for a child's speech and language development that provides the alerting sign to a diagnosis of Autism Spectrum Disorder (ASD). So, how does the relationship between home and school become disjointed after the initial signaling of needed supports?

Before any IEP or intervention is started, parents acknowledge that the educators within the school building are experts in their field and seek out support as diagnosis can lead to added stress to the caregiver (Gona et al., 2012), After working with the teachers and educational team, Isik-Ercan (2010) found that parents felt unsupported in accessing the culture of the school; the terminology or educational jargon, eagerness for communication, and added expectation on the parents lead to disease within parents. The majority of parents surveyed stated that they found teachers pedagogical practices and classroom techniques were best practice for students, but that the teacher's expectations of students and rigor of instruction did not reflect the child's true ability (Isik-Ercan, 2010). Parents see their child in one perspective, and teachers view the child from another. Educators have a viewpoint of a child through a lens that includes standards and assessments, while parents are able to view the abilities of their child in a more natural setting. Working to have teachers and caregivers on the same page is no easy task, and parent involvement, education, training, and coaching by educators is a method of removing doubt on

the side of the educational professional (Siller & Morgan, 2018). Caregivers sharing anecdotal notes, social emotional developments, and strategies for engagement promote a more holistic view to educators. Neither caregiver nor educator can completely change the lens in which they see the child, but openness to hearing additional perspective opens each party to peripheral information to gain a clearer picture of the child. When students are non-verbal and are unable to orally express thoughts, feelings, emotions, experiences, perceptions, and culture, the need for openness between all caregiving and educating parties becomes a pressing necessity.

Theory

The ecological systems theory (Bronfenbrenner, 1999) outlines the interconnected social, physical, and political systems that support human development. Beginning with the environments and people closest and most influential to a child's daily life, visualize a child at the center of a circle; this microsystem is comprised of home, school, place of religious worship, and any other community in which a student spends their time and interacts with teachers and caregivers (Blandin, 2017). The people who most affect a students' microsystem are parents, teachers, educational assistants, school social workers, and community or social service staff (Haessler, 2001). This dynamic and interconnected microsystem of people vary from child to child as children are socialized differently in their homes and communities (Haessler, 2001; Schulz, 2009).

It is within the mesosystem that the relationship between caregiver and school occurs (Blandin, 2017; Josilowski, 2017). According to Bronfrenbrenner (2009), the relationship between school and home has an impact on child development in the same way the relationship

between child and school, and child and home affect the child's growth and development (Josilowski, 2017). The home-school relationship must be built in interest of the student, as a shared responsibility of contribution and educational, social, and emotional development (Blandin, 2017). For children with autism and are non-verbal in their participation, a home-school connection can provide insight into preferences and styles of communication; the parent or caregiver is the child's first teacher (Josilowski, 2017). If the child is unable to fully express themselves, the strengthening of the relationship between school and home is of utmost importance to ensure students are being supported in routines, procedures, and are being understood when oral communication is unavailable. The mandate of parental involvement written into NCLB and IDEA are rooted in the ecological systems theory; the joining of the school microsystem with the home microsystem in an attempt to ensure parents and teachers work as partners in the best interest of the child (Haessler, 2011).

Research Questions

As an early childhood education teacher, my initial perspective from the classroom has been around what I can do to support parents in continuing the structures and lessons being taught at school, and incorporating them into their home environment. This limiting belief places me in the position of power and knowledge, and ignores the Funds of Knowledge (Amaro-Jimenez, 2016) that parents, families, and cultures hold and contribute to the student's in my classroom's wellbeing and growth. The parent or caregiver is the first educator, and I have the privilege of entering a student's life for a short moment in time; so changing the question and perspective is important for me to create the most supportive environment possible.

1. For students communicating non-verbally, what is happening at home?

2. How are teachers supporting home-based practices, and mirroring these effective interventions in the school?

Principles

To investigate this question, I am interested in exploring the home-based practices used to support students communicating non-verbally who are on the Autism spectrum. I am also interested in learning how teachers are mirroring these practices, and parent expertise on their own child, in the classroom. Using ecological systems theory, I will use the qualitative method of narrative inquiry and grounded theory to collect and organize parent and teacher data.

Concepts and Constructs

For maximum benefit of home based intervention practices to support students who are non-verbal and/or on the Autism spectrum, targeted interventions should begin as early as possible for students; preferably before age 5 (McConkey et al., 2010). As parents begin to set up an intervention in the home, and choose to seek outside support, Blandin (2017) emphasizes that the most successful programs are the ones that incorporate and honor the culture of the family. Explicitly inviting the family into the set-up and creation of a support program creates a sense of ownership, and teamwork. As caring for a child with diverse communication needs has been shown to result in higher levels of stress for parents (Gona et al., 2012), and setting up a home-based intervention should compliment family values; adding additional stress could undermine the progress of students within the intervention.

When looking into the different research based interventions to support students who are communicating non-verbally and/or are on the Autism spectrum, Applied Behavior Analysis (ABA) and Treatment and Education of Autistic and related Communications handicapped CHildren (TEACCH) are two programs that focus on support through a structured environment and targeting desired behaviors (McConkey et al., 2010). ABA is a 1:1 targeted intervention that teaches students skills of learning participation, communication, and self-care by breaking down tasks into explicit steps taught over time (Trudgeon & Carr, 2007). These skills and steps to completion of the task are built upon daily through repetition, and over time become more complex and the student's stamina is built. The TEACCH method relies on a similar style of structure and explicit teaching, and includes visual prompts to support students (McConkey et al., 2010). The method of explicitly teaching step by step protocols is an ABA strategy that is seen as an underlying structure of multiple interventions that support students with Autism Spectrum Disorder (ASD) (Siller & Morgan, 2018).

While implementing the structures of an ABA based intervention, a variety of augmentative and alternative communication (AAC) tools are used to support students in communicating needs (Burke et al, 2018). AAC is the practice of using supplemental material to replace oral communication (Gona et al., 2012). AAC can be used with aided communication, and unaided communication. Aided communication involves a device or material that is outside the communicator's body such as using images to communicate, or a digital text-to-speech tool, while unaided communication uses only the communicator's body (sign language, facial expression, body movement) (Gona et al., 2012). The World Health Organization defines

participation as active involvement in life situations (Thomas-Stonell et al., 2016), and for students communicating non-verbally, aided AAC is a method for participation.

One aided AAC method for supporting students during these structured interventions is through the use of the Picture Exchange Communication System (PECS). The PECS system incorporates small images that represent physical objects in the environment, as well as prompts, and visual cues. These images are used by students who communicate non-verbally as a tool to request, and exert control over their environment (Chaabane et al., 2009). A study completed by Jurgens et al. (2012) found that the integration of the PECS intervention resulted in improved verbal utterances by students, higher instances of communication attempts, and decreased 'problem behaviors.' The PECS intervention has six phases that students work through. The initial phase of PECS begins with students making requests by exchanging an image for a desired item (food, drink, stimuli) (Chaabane et al., 2009). As the phases progress, students develop skills in seeking out a communication partner, making choices of between images, using descriptive images to indicate interest in an object without pointing, and eventually making novel comments. Knowing the communication skills that are prompt dependent are not functional nor independent; the end goal of improvisational communication is developed over time by working through the six phases of the PECS intervention protocol (Chaabane et al., 2009; Jurgens et al., 2012).

These aided and unaided methods of AAC are available for parents to lean on in supporting their child's development, but come at a cost. Each level of PECS training, Pyramid Education Consultants charges $250 for parents and caregivers, and $350 for educators (PECS Training, 2017). With this cost, parents and caregivers look towards alternative methods for

training and home intervention; families with culturally diverse backgrounds, or who are low-income, require more inclusive methods for training and intervention implementation (Haessler, 2011), especially when the intervention requires upwards of 40 hours of 1:1 support in some cases (McConkey et al., 2010). A study of Early Intensive Behavioral Interventions (EIBI) in the United Kingdom found that for the training and implementation of home-based interventions, a minimum of 25 hours a week of support by an outside trainer is required for effective outcomes (Trudgeon & Carr, 2007). Trudgeon & Carr's (2007) study also found that the majority of these EIBI services were funded by the parents themselves, compounding the stress by adding the addition of monetary responsibility; these factors lead to fatigue and distress (Gona et al., 2012).

Trudgeon & Carr's (2007) study of effectiveness in implementation included narrative accounts by the parents, and found that the more frequently and the behaviors associated with Autism occured, the higher amounts of stress the parents reported. When parents had adaptive coping strategies, and had a social network of support during these interventions, reports of stress went down. Although these in-home services are being done by an outside educator, parents are developing the skills to implement any protocols once the provider leaves. Having an educator support the home-based implementation of an intervention is valuable when the educator becomes 'part of the family;'a study by Isik-Ercan (2010) on parent perspective of intervention support found that when the educator moves beyond solely supporting academic development, parents perceived student's to be more fully supported. The parent's involvement interconnected with the academic environment supports the ecological systems theory of mesosystem development and home-school connection leading to academic achievement (Blandin, 2017).

Understanding that a home-based intervention that requires AAC techniques shows a positive correlation to both student development and caregiver experiences (Gona et al., 2012) is a start, but as previously mentioned, caregivers are often funding these ventures themselves. When funding for outside support is not an option, caregivers turn to free resources. Jurgens et al.'s (2012) study of Youtube videos that were tagged with the terms "PECS," and "Autism," found that of the 186 videos listed under the initial criteria, only 21 were retained for the study based on their relevant material. Within these 21 videos, 61% of the interactions between parent and child during implementation of the PECS intervention were coded as errors, and did not meet the requirements of the intervention protocol. Parent errors included open hand prompting for images, vocal prompts, and insistence that the child create oral/verbal utterances (Jurgens et al., 2012). This study of Youtube videos shows that when limited free training is available for parents, it cannot be counted on as a valid replication. However, Gona et al. (2012) implemented a study of introducing AAC materials in a rural Kenyan community that worked similarly to PECS. The study used low-technology materials that required no electricity or maintenance, and taught children communicating nonverbally how to exchange labels of food items with their caregiver and modeled the process of providing the material for the caregiver. Narrative data from the caregivers outlined children developing spontaneous communication skills, integration within society and school, and praise of divine or supernatural intervention. A comparison between these two studies leads to discussion of if the strict protocol of the PECS program by Pyramid Education Consultants is mandatory to develop student independence and spontaneous communication, or is just the most efficient way?

Siller & Morgan (2018) sought to evaluate the effectiveness of parent-mediated interventions and completed a comprehensive review of studies done between 2013 and 2015. The four categories of parent implemented intervention were broken down into the four categories of ABA Based Early Intensive Behavioral and Developmental Approaches, Behavioral and Developmental Early Intervention-Parent Training, and Play-/Interaction-Focused Intervention Approaches. The study proved that effectiveness of intervention was challenging to define as each participant's communication levels, and behavior brought on by Autism varied from case to case. This study found that the variety of interventions were effective in their environment because parents were showing synchronous response to child communication attempts. The interventions provided structure and reinforcement of the parent's interaction with students, and promoted elaboration between the communicators, which then reduced the amount of Autism-like behavior observed (Siller & Morgan, 2018), leading to the question of whether the specific protocols of an intervention are as important as the relationship and sense of connection between caregiver and learner within the learner's microsystem (Blandin, 2017).

Research Design

Participants

The participants of the study will be the students communicating nonverbally within the Preschool Autism classrooms (PAC) at Pine Spring elementary school in Falls Church, Virginia. Pine Spring elementary school is a pre-K through six elementary school within Fairfax County Public schools.

Data Sources

A series of interviews with parents/teachers who opt in to the study will be conducted three times throughout the year. The first interview will take place after the first six weeks of school, the second interview taking place within six weeks of returning back to the classroom after winter break, and the third interview taking place during the last six weeks of school.Interviewing both the parents and students during these three time frames could allow for development of practice across time, the consideration of student growth, and showcase the development of relationship between teacher and student, as well as teachers understanding of student need.

Procedures

The interviews would be conducted in a one on one setting within the school or community, with use of a recording device to ensure that data collection is thoroughly coded. Each interview would consist of the two main research questions:

1. For students communicating non-verbally, what is happening at home?

2. How are teachers supporting home-based practices, and mirroring these effective interventions in the school?

Following the parent/teacher response to each of these questions, open prompting would be used to elicit clear information of strategy, example of protocol, and deeper understanding of methods used.

Ethical Considerations

As a teacher than Fairfax County Public schools, and an educator in the same building as the study is taking place, I would be sure to disclose my research interests, and this relationship to parents and teachers to ensure their understanding that their narrative data would be used

within the context of research, and not the school environment. The recording of narrative data would be kept in a central location, and be locked and unavailable to those not participating on the research team. Answers elicited by the teacher could impact the relationship with the caregiver, and answers provided by the caregiver have the potential to be used by the teacher in contexts outside of the classroom. Participants would not be able to access data gathered by the research team.

Anticipated Results and Discussion

We are conducting this narrative research,A narrative study of parent interventions happening at home could provide insight for educators into strategies that are most effective for each particular student, and could highlight practices that are concurrent across cultural backgrounds. This study will take place as a collection of narrative data, conducted in a one on one setting. Grounded theory will be used to analyze the data collection of both teachers, and caregivers, to provide insight on what interventions are taking place at home, and how those are being mirrored within the school building.

After the conclusion of the study it is hoped that both caregivers and teachers reflect on their experience with the shared learner, and begin to notice consistencies and discrepancies between interventions or protocols put in place at school/home. Reflecting on student social or academic achievement in each setting could provide incentive to communicate more frequently in the best interest of strengthening the mesosystem of the learner. By doing so, and widening the repertoire of methods of support, it is theorized that the student's relationship with caregiver, and student relationship with educator would strengthen within the learner's microsystem.

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