

Tying it All Together: Teaching Developmental Theory for Online Repository

**Praxis Project Thesis: Submitted in partial fulfillment of the requirements
for the degree of Bachelor of Arts — as part of the Community, Youth,
and Education Studies Major at Clark University**

Samantha Michaela Santos

Committee Signatures:

Eric DeMeulenaere, Ph.D.

John Ameer, Ed.D.

Jie Park, Ph.D.

Abstract

In conjunction with the rise of remote learning for many education systems during the pandemic, an Online Repository Project was created in which the overall goal was to create educational video content for children and adolescents ranging from ages zero to eighteen. This study focused on the process of creating videos for the youngest age group, ages zero to five years old, and worked to explore the impact of teaching university students how to create educational content that encouraged the growth of motor, cognitive, or socio-emotional development. Participants were 10 college-aged students who were interviewed regarding their experience learning developmental concepts and creating content to share with young children. Results from the interviews suggested that there was a lack of understanding of important concepts to teach children before the process began and that the training on the subject was said to demonstrate a clearer comprehension of teaching infants to preschool aged children. These findings provide insight into the importance of understanding developmental concepts when creating educational content for young children and offer future directions for studying and critiquing educational curricula for younger generations.

Acknowledgements

First, I want to acknowledge the Community, Youth, and Education Studies program for giving me the opportunity to do work both in the Clark and the greater Worcester community. As a student, I have always strived to do work that I am passionate about and being able to write a thesis that is incredibly personal to me and about what I hope to work and continue advocating for in the future is amazing. This process has been valuable to my growth as a researcher and as a person who wants so badly to help others, and it would not have been possible without a platform like CYES.

Next, I want to extend a huge thank you to the members of the Online Repository Project, especially Dr. Jie Park - who got me involved in the project, and the Clark students who had attended my training sessions and agreed to be interviewed. The experiences, trials, and successes you shared with me taught me about people and the power of dialogue. The discussions that I was able to be part of gave me information and stories that no amount of published literature and articles could give me. I want to thank all of you for being the biggest contributors to my thesis.

To my cohort, thank you for your endless support and kindness. We have been together since the very beginning of the pandemic and have never stopped building each other up and encouraging each other to do good work. I am forever grateful to be part of a cohort built of inspiring, intelligent, and genuine individuals. I am so happy that out of all the students on Clark's campus, you all became my Praxis family.

Lastly, I want to thank Dr. Eric DeMeulenaere for being my advisor and mentor throughout all of this. I cannot thank you enough for the amount of kindness and patience you have given me throughout my process of writing two theses and all that occurred between our start and the end goal being reached. You rooted for me even when I questioned my own ability and I will always remember being lucky enough to have you as one of my biggest supporters.

TABLE OF CONTENTS

Abstract.....	1
Acknowledgements	2
1. What is String Theory?: Introduction	4
1.1 Where the Problem Lies	
1.2 Praxis Goals and Inquiries	
2. Background Research: A Review of the Literature.....	12
2.1 Motor Development	
2.2 Cognitive Development	
2.3 Socioemotional Development	
2.4 Fostering Student Engagement	
2.5 Contextualizing in Urban Areas	
3. Forming a Hypothesis: Conceptual Framework	20
3.1 Importance of Developmental Theory and Child Engagement	
3.2 Framing Theories Within Sociocultural Contexts	
3.3 Building From What is Missing	
4. Conducting the Experiment: Methods	24
4.1 Methodology	
4.2 Action Site	
4.3 Positionality	
4.4 Participants	
4.5 Data Collection	
4.6 Data Analysis	
5. Compiling Results: Objectives for Change and Action Procedures	32
5.1 Goals for Change	
5.2 Action Plan	
5.3 Developing a Training Program	
5.4 Recruitment and Training Process	
6. Analyzing the Results: Students' Experiences and Insights	38
6.1 Choosing Process	
6.2 Learning Fundamentals	
6.3 Putting Skills into Practice	
6.4 Real World Connections	
7. Drawing a Conclusion	55
7.1 Implications	
7.2 Significance for Teachers	
7.3 Limitations and Future Directions	
7.4 Final Reflections	
References	63
Appendix	68

1. What is String Theory?: Introduction

“We should be on our guard not to overestimate science and scientific methods when it is a question of human problems, and we should not assume that experts are the only ones who have the right to express themselves on questions affecting the organization of society.” — Albert Einstein

If the concept of string theory is true, being that the entire universe is made up of these cosmic strings that interact with one another and can ultimately theorize quantum gravity, then the single fact that I can tie the strings of a child’s shoe into a bow really pales in comparison. If this one theory about one-dimensional strings can address hundreds to thousands of questions about fundamental physics, then me showing a kid how to tie her shoes really doesn’t matter. And yet, it does.

The summer I started volunteering at a childcare center was also the summer in which I had to prepare to take an AP Physics class in the following year of high school. Our summer homework, though consisting of pages and pages of readings that made my head spin, also had one question that stood out to me: what is string theory?

Which explains why I came into my first daycare classroom with my brain whirling with scientific practices and findings, only to be welcomed by twenty little beings with bright eyes, messy hands, and surely no interest in the theories of quantum physics.

And thus, I became Miss Samantha. The theory of physics was pushed to the sidelines at the early hour of 7:00am. When I had cereal in my hair and a child at each arm, one trying to get me to read him a book about pirates and the other screaming about apparently being bitten by another child, the only thing that made sense was that, in that moment, I was all they had. In their eyes, I was their teacher and my sole purpose was to be there for them, keep them safe, and teach them how to be good people. And you can bet that felt far more important than string theory. I

was unable to focus on quantum mechanics as the more practical effects of gravity combined with tiny hands caused spills and bumped heads. The sound frequencies emanating from upset children captured all of my attention.

If anyone had told me that I would be excited to be in this setting for years onward, I think I would have laughed and gone back to my physics homework. That first summer, in particular, there was a little girl with an attitude far bigger than her three foot frame. Sophia was a feisty little four year old with a reputation for lying far too well for someone of her age. She rolled her eyes, spoke back, and constantly asked questions she absolutely already knew the answer to, like what color her shoes were that day or if she could throw sand on the floor. But she never hit another kid, never took another kid's toy, and she was kind to the youngest members of the classroom. She loved to learn and always made a point to be the loudest voice in the room when she knew the answer to a question. She was a little know-it-all, and she kept wanting to know more. Sophia was a handful, but she made the day just a little more exciting. Being with kids like her made the day fun. And it was a little like string theory, in a way. There are so many individual children, with their own lives and personalities. They are at the starting point, the baseline in what they will grow to be, but there is so much that goes into caring for them and teaching them. Giving them attention and support and teaching them to their level was necessary to bring them all together.

Back on the subject at hand, there was a lot more to Sophia than what was seen at the surface. There were some mornings where she came in looking far too tired and slept for too long during naptime. Sometimes she would snap, yelling at no one but more angry than a little one should be. When put in play groups with the other kids she would scream and cry about things being messy and not being able to clean it. She spoke back more and listened less, getting

more and more frustrated if she didn't understand a new topic. There was something wrong, that much was obvious, but kids her age don't have the emotional regulation to understand what is causing the feelings they have. There was an underlying cause, and that's when I learned another lesson about teaching: the feeling of helplessness when a child is suffering from something that went beyond the walls of the classroom.

As it turned out, Sophia was having trouble at home. Her mother wasn't fit to take care of her and her father wasn't in the picture. Her grandmother was trying to gain custody of her but the woman was battling her own issues. Sophia was about to be bounced from foster home to foster home, all at an age where she just wanted love and attention but didn't know she needed it.

I had no idea what to do in this situation. This wasn't physics anymore, there was no equation I could learn or studies I could read that would give me an answer. As a teacher, I had no power beyond our classroom. I could bandage her scrapes and teach her how to draw rectangles but I couldn't fix an unstable family. What was important, however, was to be patient and to understand that her brain could not possibly make sense of all that was happening in her life, not to mention what was happening in the classroom. And there were many methods to this type of complexity. For example, I had to learn how to discipline her and explain to her why throwing fits wouldn't fix a problem, but also have the care to know that she might not have known how else to respond. I learned that sitting with her and giving her individual attention when she was struggling with writing a new letter or reading a sentence was one of the grandest gestures. Preschool became a safe space for her, where we, her teachers, were her constants and she could make friends who made her laugh. We had to learn that it wasn't the reiteration of our care for her that was important, but it was our presence and the fact that we were there to teach her and make her laugh when she was struggling outside of school. After a particularly loud

tantrum she had one afternoon, I asked if she wanted a hug and Sophia gave me the tightest squeeze she could muster. And then, she asked me to show her how to tie her shoelaces. Just like that, a problem was solved and Sophia was smiling again, just because I showed her how to tie together two pieces of string.

Despite my best efforts, AP Physics taught me that there really is no clean explanation of string theory. Similarly, there is also no cleancut way to teach a child. String theory is this complex theoretical framework that is applied to many concepts in science, be it gravity, matter, or even nuclear physics. It is used to help scientists find a baseline in asking questions and a starting point that goes beyond the standard model of science. My experience in working in early childhood education and my studies in developmental psychology reveal that early childhood is the baseline for a person's life. It's important not just for children and their parents, but for our society as a whole, that we ensure we are teaching towards this baseline and ensuring that each child's early childhood education experience is as powerful and nurturing as possible.

When you have a baseline, be it cosmic strings or an individual child, you can either discover new things or create a nuclear bomb - literally. But the universe has many string theories to start with that can each have its own purpose and different way of reacting and interacting. Not every equation will work with each one. Just like how each child is unique and will react differently to certain events, whether it be a family separation or even a sibling being born. What is important, for each concept, is to handle it with care and to understand that, as scientists or as teachers, this baseline is the most important part. I may not understand the various intricacies of quantum physics and I don't always know the answer when a child is upset, but what's important is that I don't stop trying to teach them. Early childhood education is just as important as string theory, because where they start and how they start learning is up to us as

their teachers and up to those who deem them important enough to grow. After that, who knows what discoveries may come next.

1.1 Where the Problem Lies

I will never fail to tell this story to anyone who is considering teaching kids. I have found that most people react to working in early childhood education in two different ways. They either love it and they love children, or they couldn't imagine being in that position. Because even those who have never worked with little ones before understand, it may not be string theory, but it's not easy either. Cases like Sophia are not unique. Childcare centers like mine see these issues play out all the time, whether it's because their parents work too much or their household's are overwhelmed by parental dysfunction. Teachers like the ones I worked alongside are there to help in these situations, to be constants, and to nurture a child who may feel unsafe. The space we create in our classrooms act as a zone of comfort and stability for kids, where they can learn and grow and are encouraged to do so.

Being a volunteer, and eventually an employed, preschool teacher was a daunting new position for me. I came in with an open mind and a truly terrified heart. Even at fifteen with no experience, there was one thing I understood: the quality of the people in a child's environment has a large effect in their overall development and learning. Children are affected by the smallest changes in their surroundings and their emotions typically are not developed enough to comprehend what those changes mean. And, more importantly, teachers become one of the child's most prominent and consistent adult figures to which they learn from. Especially right now, during a global pandemic, children are completely thrown out of their normal schedules and understanding of the world around them. With many schools remaining remote, the youngest

students are some of the ones who are suffering the most, as they do not have this space with their teachers to learn and play alongside their classmates. In this period of uncertainty and anxiety that we are living in, I believe it is even more essential to ensure that children are being provided with even the simplest means of education and guidance in order to continue supporting their growth and development and fostering that attention that they need to learn.

1.2 Praxis Goals and Inquiries

For my Praxis Project, I focused on the issues that arose within the education system in Worcester as their schools were forced to remain remote for the majority of the school year due to the effects of the global pandemic. Many families and teachers have spoken about the difficulties that have come with having to teach remotely as inner city schools, where most kids are coming from low income neighborhoods and may need more resources than what their schools were able to provide. There has been feedback from many teachers and parents regarding student engagement and the struggle kids and teenagers are having with being invested in what they are learning while there are so many stressors in their lives. One of the many proposed solutions to these issues was to create an online resource that provides the students with videos on different subjects that they will have access to in order to continue learning or go back to any topic that they may have faced confusion over. This solution aimed to create an online repository of educational content for students that would be accessible as resources for their education.

In the fall of 2020, I joined a team of professors and faculty members from different colleges in Worcester in order to create an Online Repository Project, in which the goal was to create this online platform that would give students, ranging from infancy to eighteen years old, the opportunity to have access to educational content while learning remotely. My role in this

project fell under the realm of gauging interest from other college students in order to recruit people who are interested in creating video content for preschool-aged children. Due to my experience working in early childhood education with a background of studying developmental psychology, the group also decided that I would be a good fit to create and conduct a short training for the college students who were interested in creating the content but had little experience in the education field. This training was deemed necessary due to a common concern from those interested stating that they did not feel knowledgeable enough on topics related to early childhood education and were unaware of the types of content they should be making that would be both enjoyable and beneficial for young children.

My training consisted mainly of developmental concepts that are important to understand when teaching children, such as different milestones that are commonly reached in children's motor, cognitive, and socio-emotional development. It was imperative for me to use both my experience working with children as well as the many studies I have analyzed discussing child development, because I wanted to be able to provide people with enough insight to feel confident that the content they were making would be helpful for parents and developmentally appropriate for their children. While much of what zero-to-five-year-old children understand can seem very simplistic and straightforward, it is still so important for them to be taking in content that can stimulate their minds and foster positive development. It was very important for me to present that clearly to those I was training, because I wanted to ensure that they had all the resources and knowledge they may need to cater to children's complex developmental timelines.

Though the goal of the overall repository project was to successfully create this online repository platform for K-12 students in the Worcester area, I also hoped to gain insight on what it was like for college students who were indirectly working and teaching children for the first

time. I have worked with and studied child development practices for so long now that I often forget that others may not have the same experience or background. I was curious to find out how non-childhood educators experienced learning about teaching kids and what they think of the intricacies that go into a child's growth. With all this, my research questions were as follows:

1. What was the best way to design a training program in order to teach students how to create educational content for children in the zero to five age range with a focus on catering to developmental needs and milestones?
2. What were the impacts of this training program on the college students? Further, how do their experiences of creating content for younger children compare to my analyses of their videos as I observe whether or not the developmental concepts are reflected in their creations?

Early childhood education is constantly spoken about like it is a necessity but acted upon as if it were a privilege. With a year like the one we have been enduring thus far, it is more important now than ever to provide children with a stable form of education and enjoyment. As much as it is admirable for teachers and administrators to support families and students to the best of their ability, it is still evident that no one has ever had to plan for events as large and serious as a global pandemic. Working on the Online Repository Project has given me a space where I can lend any hand I can to teachers in Worcester who are struggling, particularly the teachers and parents of the littlest ones who are even more confused and need more attention and guidance than many can provide them. This age group of children ages zero to five, especially, have less access to resources through the Worcester school district because they are not always included in the K-12 public school system. I think it's so important for college students to advocate and contribute to the understanding that even the youngest minds need the support to

grow as much as we do. Early education may not be as revolutionary as string theory, but it is just as important for our society and the growth of the ones who will be paving our future.

2. Background Research: A Review of the Literature

“Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less.” — Marie Curie

In conducting research for my project, I have found that it was imperative for me to set my focus on both developmental theory and child engagement in order to best understand the role college students would play in the Online Repository Project and how to communicate that to them in the most effective means. In order to best provide training principles that will assist students in creating educational content for young children, I had to recognize the developmental milestones that are typically occurring from ages zero to five years old as well as the impact they have on children’s educational progress. Along with that, I understood that the teachers that children have play an essential role to their growth, learning, and overall engagement in school. Therefore, understanding the methods teachers employ in their classroom and how it would affect kids in Worcester in regard to developmental theory was necessary to best explain to the college students I was working with how their content would support students’ engagement and developmental growth.

The important developmental milestones that occur for children within their early childhood education typically fall in the areas of motor, cognitive, and socio-emotional development (Malvik, 2020). Overall, human development is one of the largest contributing factors to human behavior. As children go through their different stages of life, they approach learning in many different ways which gets enforced by the stimuli in their environment. When a

teacher has an understanding of child development, they can use that knowledge to better connect with their students and understand their behaviors and tendencies when learning new skills and encountering different challenges (Davies, 2019). The widely known theories of child development act as guidelines for a child's growth with every stage of their lives, but there is always the assumption that all children are different and will have a variety of distinct milestones depending on their environment and the culture they are living in.

2.1 Motor Development

The basic theories of motor development begin with physicists and biologists in their attempts to understand the human body from the earliest stages. Myrtle McGraw (1945), in collaboration with John Dewey, believed that the motor system of a child develops as a means to carry out different actions and reach a goal at the most efficient movement (as cited by Learner, et al., 2015). Arnold Gessel (1928), on the other hand, argued that children's motor skills developed alongside the central nervous system, and he developed the "Gessel Developmental Schedules," which were among the first milestones charts that was used for young children (Ball, 1977). In terms of preschool-aged children, however, motor development is focused more on gross and fine motor skills (Morelli, 2020). Gross motor skills apply to large scale body movements, such as walking, running, and jumping. By preschool, children are only just learning how to balance and coordinate their movements, which is emphasized by constant movement and encouragement to try new things. Fine motor skills typically require hand-eye coordination, referring mainly to skills like writing, drawing, using tools, and even typing. In preschool, it is often advised for children to begin introducing fine motor skills in practice in order to become more dexterous and efficient in coordination for later in life (Piek, et al., 2008).

While motor development is one of the more straightforward developmental concepts to upkeep during a child's early stages, it is overwhelmingly essential to observe and facilitate children's physical growth in order to be aware of any difficulties they may have as well as to promote peak physical health for later in life. For younger children especially, using activities or exercises that focus on their motor development has been seen to foster better learning as it stimulates their brains and pushes them to actively move their body while participating in an activity (Lawson, et al., 2021). Students would be able to incorporate physical activity in their videos through games and music exercises, which not only prompts active movement and balance but also enjoyment and invigoration for children (Veldman, et al., 2021).

2.2 Cognitive Development

Further, one of the earliest theories of children's cognitive development was established by Jean Piaget (1963), who proposed that intelligence is something that grows and develops over a series of four stages: sensorimotor, preoperational, concrete operational, and formal operational. Early childhood-aged children fall in between the sensorimotor and preoperational stages, as they are only beginning to build their understanding of the world around them and how they can interact with their environment. The bulk of Piaget's theory focuses on how children come to understand physical and logical properties in the world and how they affect them as individuals (as cited by Tudge & Rogoff, 1989). While social interactions are less central in Piaget's theory, he remained that it is still restricted to the current stage a child is in and that cooperation is the most ideal form of social interaction that promotes positive cognitive development, indicating that figures like teachers would be able to best support their students by

creating safe environments and encouraging independent exploration (Vandenbroucke, et al., 2018).

Commonly compared to Piaget's theories are that of Lev Vygotsky (1934), who proposed using a sociocultural lens when observing a child's cognitive development. He set the stage with three important concepts, stating that culture is significant to learning, language is the root of culture, and that individuals learn within their roles in their community (Kurt, 2020). Vygotsky argued that children are directly affected by their environment and surrounding social culture, indicating that their socialization greatly defines their cognitive ability (Tudge & Rogoff, 1989). This is a very significant understanding for this context, because it calls to assume that the perception of cognitive competency areas such as math, science, literature, and social studies can be greatly facilitated by the classroom and figures by which they are taught, suggesting that it is not merely the content that is important but also the environment in which it is taught (Bradley, et al., 2018). In terms of this project, this indicates the importance of urging students to understand the context in which the children are coming from when creating education content, because it is necessary to know what resources the children may have and what understandings they may already have of the subjects students wish to teach.

2.3 Socioemotional Development

Next, the socialization process for children is largely based on Erik Erikson's Eight Stages of Development, which he developed through his work in psychotherapy with children and adolescents. He believed that each stage in a child's life consists of a "psychosocial crisis" in which each stage's crisis must be learned and resolved in order to manage the subsequent stages. Early childhood or preschool-aged children are expected to be in the first through third stages,

which are defined as the “trust versus mistrust,” “autonomy versus shame and doubt,” and the “learning initiative versus guilt” stages respectively. The first step is the most crucial one, as infants and toddlers are basically dependent on their caregivers and it is essential for them to be able to form secure and trusting bonds moving forward (Abshor, 2017). Then, between preschool and entry into formal schooling, children begin exploring and using their imagination as well as interacting with others, while at the same time facing the challenges of learning to not completely depend on adults while fearing their new surroundings and responsibilities in school (Cross, 2001). Students who enter the classroom with difficulties pushing through these crises require the support of their peers and teachers in order to find a secure condition in which they are encouraged to be more independent while discovering their identity and learning both socially and academically (Zee & Roorda, 2018).

While it would be difficult for college students to apply more socioemotional understandings into their videos, it was necessary to understand how children’s socioemotional learning is affected by their current environment in regards to their stages of development. Children’s ability to process social and emotional stimuli is often taken at face value by adults who lack the understanding of where their behaviors and feelings may stem from in their few years of life (Lemerise & Arsenio, 2000). In Crick and Dodge’s (1984) theory of social information processing as well as the Functionalist theory of emotion (as cited by Lazarus (1991), it was emphasized that children tend to enter social or emotional situations with past experiences and biologically determined capabilities and their emotions and responses can adapt depending on the stressors they encounter. It is important for adults to be able to think critically about where children’s reactions in socio-emotional scenarios could have originated from as it will allow them to recognize where children may be struggling or need support. Being able to

understand and apply this knowledge on children's socioemotional development in practical use can better foster stronger understandings between kids and their teachers, parents, and peers as they would be able to form that baseline of comfort and safety that can encourage more open communication and understanding later in life.

2.4 Fostering Child Engagement

Positive child engagement is foundational to a student's success when they are in school, even children in the youngest age levels. Factors like teacher-support and attentiveness have been found to not only bolster students' academic success, but also positively encourage strong cognitive and socioemotional development, particularly with students who may have difficulties in the classroom (Corbin et al., 2020). The stronger social and emotional qualities of teachers' interactions with their students have often been characterized by their warmth and openness, allowing them to also be predictors of children's attachment styles and emotional regulation later in life (Rucinski et al., 2018). Specifically with children with academic or behavioral disabilities, in which there are often deficits in socioemotional or cognitive functioning (APA, 2013) encouraging positive affects when learning is essential for facing challenging situations in the classroom (Zee et al., 2020). Without these positive interactions and influences from teachers, children have been found to face a lack of attention or care that poses risks for emotional distress that can even be doubled with negative relationships. It is important for good teacher-child interactions to be facilitated in schools, not only for benefits in academic engagement, but also for the overall increase in personal and social learning and development.

The literature on younger students' engagement and developmental theory has deeply extended our understanding of what a child needs in order to succeed, not only in their

academics but also in their personal, emotional, and social growth. Both neurotypical children and children with diagnosed or potential learning or behavioral disabilities have faced the challenges of learning to follow directions, maintain attention to tasks, and work independently which, while not assessed in educational settings, are essential to their abilities as students (Foreman & Gubbins, 2018). Teachers are directly in the position in which they have the responsibility to assist children who need help with these skills and, more often than not, they are not able to provide struggling children with the focus they need due to the strict requirements of set curriculums (Flook, 2019). It is important for there to be an understanding on what resources and skills teachers need to best support their students, beginning with what is needed within the current classroom and towards what the outcome would be if there were better advocacy for teachers and their students. This acknowledgement is especially relevant for this project, as the students I will be working with may be creating content that teachers will be able to share with their students as a means to entertain them while boosting their own knowledge. As we know, even the simplest of stimuli can be engaging and productive for kids. Being able to discuss and contribute to the work that teachers are currently undergoing to cultivate strong relationships with their students while also indulging in the children's cognitive and socioemotional capabilities has the potential to act as a support for teachers to continue making their connections while having an aid to provide more educational backings (Downer et al., 2010).

2.5 Contextualizing in Urban Areas

Finally, an additional component that is important to recognize with this project is that the children Clark students would be creating video content for are primarily based on the Worcester area. This means that they are all children living in urban neighborhoods and will

most likely eventually be going to schools within the city. There have been several studies that have been done on the creative and academic learning of children, and have found that children from urban areas have actually performed better on measures of creativity in their learning (Shi, et al., 2013). In addition, researchers have also found that children's ability to be resilient, both inside and outside their education, has largely been predicted by the socioemotional bonds they create as well as their engagement with positive socioemotional affects (Wyman, et al., 1999). This has led many researchers and even teachers and caregivers to believe that children who are in lower income, urban areas are capable of success so long as they are able to receive both emotional and educational support. Support has been said to include anything from positive reinforcements when learning and interacting with others to remaining conscious of the contexts they are in as to not belittle them (Choi, 2010).

Children residing in disadvantaged areas are regularly known as the "resilient children." And while these children are often strong-willed and capable of great success, there is still a great need of support and care that goes into ensuring their ability to move forward despite their situation. In urban areas such as Worcester, children may not have the same objective activities in terms of art supplies, musical instruments, or technology that children in other areas may have, and that may not always have to do with their income but also the resources that their schools or parents have access to (Shi, et al., 2013). However, this does not mean that they are capable of less. Children in urban areas are resilient for a reason. Studies have found that children growing up in difficult situations have been able to go far in their academics and creative goals, so long as they have had support systems and people who are willing to believe in them (Votruba-Drzal, et al., 2015). In understanding this, I have to ensure that, while the videos for this project will only

be a short form of educational content, they are still providing these children with more resources for learning and the understood support that they are receiving from others.

3. Composing a Hypothesis: Conceptual Framework

“There are two possible outcomes: if the result confirms the hypothesis, then you've made a measurement. If the result is contrary to the hypothesis, then you've made a discovery.”

— Enrico Fermi

The concepts that I have used as a basis for my questions and to frame the rest of my praxis project encompass the importance of implementing developmental theory when teaching and engaging with early childhood-aged children, as well as really teaching the students I am working with as if they are learning to be teachers themselves. As they begin learning how to create educational video content to share with the Worcester children, they are also allowing themselves to temporarily act as an infant/toddler or preschool teacher as they make an effort to educate and enforce developmental growth. Even having the smallest impact on a little kid such as making them smile or helping them to remember the names of animals or colors can manifest into greater influences for later on. These were all important themes for me to structure my conversations and interview questions around when talking to the Clark students about their experiences. While it may only take a few minutes of a Clark student's time to create these videos, those few minutes can mean the world for a three-year-old in Worcester and I wanted to make sure that I could recognize that in my focus and ensure that the students I was working with could truly grasp the impact of their work within this project.

3.1 Importance of Developmental Theory and Child Engagement

As mentioned previously, the literature on child development and theories of different developmental focuses, be it motor, cognitive, or socioemotional, present the idea that the growth from infancy to childhood can be extremely complex and predictive of children's later development. As I have found from the literature as well as my own experience in the classroom, young children have a deeply complex capacity for growth. Throughout this essential point in development, they are obtaining as many skills as they are limited in others. When teaching or interacting with infants, toddlers, and preschoolers, it is important to recognize and teach towards their abilities while, at the same time, understanding their limitations (Vandenbroucke, et al., 2018). Their environment, as well, is an essential aspect in regard to how they will take in information as well as how they will interact with their surroundings and peers (Lerner, et al., 2015). Though they are still young, it is critical for children to be able to build upon their newfound capabilities with confidence in order for them to be able to advance further in their development. I wanted to use this understanding especially in framing my training and designing a presentation that covered the important milestones children from zero to five years old were reaching, especially in terms of how potentially inexperienced students would interact with these facts in order to put it into practice.

In addition to these focuses, I believe it is also important for me to add a focus on encouraging positive engagement between the Clark students and the children they are creating videos for. Regardless of the fact that those creating the videos will not be physically interacting with any of the children watching their content, the literature has shown that presenting a positive and comforting affect when instructing is essential for better comprehension (Rucinski et al., 2018). Teachers in their classrooms or even on Zoom have had the ability to practice and develop their enthusiasm for teaching, which is often reflected in the strong relationships they

have with their students and even the success their students have in learning new information (Dinkmeyer, 1967). The students I will be working with, however, will have less or even none of this experience to have the awareness of how their inflections, language, or attitude can have an impact on the ways in which children interact with their videos and ultimately what they will be able to learn from the content they were provided (Fisher & Bullock, 1984). While the process of finding topics to teach and creating simple videos for young children can seem undemanding on paper, the constant reinforcement of developmental concepts while fostering a positive and engagement approach has the potential to be daunting. This concern was important for me to be able to recognize in order to intentionally facilitate questions and discussions with the students which will enable them to take careful consideration of all these crucial factors and implement them into their creations, in hopes of leading them towards the best track towards success.

3.2 Framing Theories Within Sociocultural Contexts

While I am unsure as to whether the Online Repository Project will be able to extend their reach of providing videos to children, families, and teachers outside of Worcester, it was important for me to recognize that the primary audience for the video content my peers would create are children in the Worcester area. While the Worcester Public School has been doing its best to provide remote schooling and educational stimuli to their K-12 students, there has been a serious lack of attention given to kids between the ages of zero- and five-years-old. This means that, for many children in this age range, videos from the project may be their first encounter with educational content that is created solely for them. Because of this, it was essential for me to recognize the sociocultural contexts of where the children who would be taking in these videos were from in order to best transfer that information to the students I was teaching. This

way, they would be able to have a clearer understanding of not only the developmental and child engagement theories that they should be aware of for their projects, but also the audience who would be receiving it.

The children in the Worcester area are living in a community that many consider a low-income, urban neighborhood. Because of this, many of the children in this area may not have the resources or living situations that the Clark students creating the content may have (Choi, 2010). It is important to try to use this understanding as a means to frame my training and how I discuss with my peers in order for them to get a broader picture of the types of children they are creating educational content for. It is possible that Worcester kids' homes may not look like ones Clark students come from and that they may need more emotional support and kindness offered to them than we realize. The context that children are in can be large indicators for how they take in and understand new concepts that students are trying to teach them, making it imperative for there to be a level of awareness for their context when creating educational content that they will be engaging in.

3.3 Building From What is Missing

An interesting finding that I discovered throughout my research process was learning that many teacher education programs seem to lack courses in understanding human development and how people learn. Generally, individuals studying education are required to take at least one course on human development, which discusses how human beings learn in different ways and the best ways to support students through socioemotional lenses (Alusabaie, 2016). The issue that I have found, however, is that there is rarely other means of supporting a teacher's developmental knowledge aside from their own experience in the classroom and their

engagement with their students, which can become problematic if they are having conflicts in teaching students towards their level or even developmentally appropriate information (Archambault et al., 2017). I couldn't help but question how an addition of developmental theory when guiding educators could potentially impact their teaching and what that means for the training I am creating for students at Clark.

Following that curiosity, research has indicated that teachers do need more support and training that can foster an increase in children's learning throughout the developmental stages they hit during their preschool and elementary school years, particularly interventions that can promote developmentally appropriate teaching strategies (Zendarski et al., 2020). This idea alone became very salient as I framed my praxis project because, as I researched how teachers today are gaining their education and getting ready to teach children, I wanted to be able to provide the students I was working with with the proper education to prepare them to create their educational videos. When I learned that developmental theory and presenting positive or appropriate engagement with young children seemed to be missing from the current education system, I wanted to ensure that it was included in my own training. I have hypothesized that, through what I have read in the literature, teaching with this baseline of developmental theory and engagement to young children can provide more productive learning and an overall stronger education that meets the needs and understanding of children at their developmental stages.

4. Conducting the Intervention: Methods

"We can be creative and generate new breakthroughs, if we're willing to work with ideas from the pool of history – both distant and more recent – despite the potential for our experiments to fail." — Doug Dawson

4.1 Methodology

The methods I used for my Praxis project pertain largely to practitioner enquiry as well as supporting the others working on the Online Repository Project and their goals and action plans. Practitioner inquiry is defined as an individual systematically and intentionally studying their own practice or teaching in order to promote critical thinking and student learning (Mariano & Figliano, 2019). During my training, I made observational notes of the types of questions students had asked regarding the types of videos and content they will be creating for the children which I used in order to interpret their current understanding of the developmental concepts that I discussed with them, as well as what methods they used to engage with the children. I also helped them to structure their own logistical understanding of why the project they have chosen to be a part of is important, even if it seems silly or unnecessary at first. This was very important in helping them to get a grasp on the significance of their work and the role they are playing not only for the kids, but for their teachers as well.

In interviewing my participants, I mainly worked to understand their experience from choosing to create content for such a young age range to how they went about creating the videos themselves. I also discussed with them what they thought of the new concepts they may have learned and what they think of the impact they are making to the broader educational community. Looking at an even wider scale, I wanted to gain their insight as students who were not accustomed to working with children on what they think is the importance of providing young children with educational content that benefits them developmentally. Many of them had gone into this project thinking it would be easy to complete and, even if it was, it was still important for them to get an understanding of how the work they did relates to the work of a

teacher because it has allowed for a better appreciation and sense of camaraderie with teachers who are currently working tirelessly to get their work done well.

Finally, I have also been able to review the videos of the ten participants I was able to interview in order to get my own understanding of how well they implemented the developmental training into their final product. This not only provided me a focus on how much they truly understood about the importance of teaching children with developmental theory, but it has also told me how much they believe they grasped in comparison to how they did in practice. While each video was different and lent themselves to different developmental outcomes and potential for student engagement, it was still important for me to be able to observe these findings and include it in my broader, final analysis of this project.

I think it was significant for me to be conducting my research with these methods because it allows for me to gain a broader understanding of the specific problem that I am focusing on. While I began with a basic understanding as to where the students' experience levels were with early childhood education, in interviewing them and discussing further about what they thought of the project and its significance, it has allowed me to learn and gain more perspectives on the questions I am asking as well as the potential to better assist the Online Repository Project for how to go about training and encouraging involvement in the future.

4.2 Action Site

The site for my praxis project is Clark University, where I have been a student for almost four years now. It is a small, liberal arts college with approximately four thousand students, undergraduate and graduate, and a ten to one student-professor ratio. With this small student and teacher population, Clark quickly becomes a very tight-knit community that depends on the

separate areas of our environment. We're a population that cares greatly for each other and in turn the neighboring communities around us. Especially with the current events of the pandemic, many Clark professors and students have been concerned about the students within Worcester and the way their school year has been progressing alongside ours. Because of this, students have seemed eager to take part in the Online Repository Project in order to help bring joy and education to the kids and adolescents. I think it is important for me to understand how Clark students hope to impact these kids through the content they create and why it is essential to still provide education to kids, even the youngest ones, during difficult times. While the neighborhoods of Worcester reside outside of the gates of our university, our students and neighbors constantly intermingle whether within campus or outside of it. I think that, when making content with these people in mind, it would be essential for us to understand the importance of the work we're doing and how it will impact the children growing within our community.

4.3 Positionality

Being a student at Clark University has given me an interesting position with my participants. When I first started my training, and even when I first joined the Repository Project, I was mistaken for a Graduate student or at least someone with much more authority than I have. While I do have experience working with children and enough to give some insight in ways to create beneficial and educational content for them, I am still constantly learning alongside them and I have attempted to host the training as more discussion based in order to remain on the same level. Particularly with my interviewees, I am a student just like them and, at most, I might be a year or two ahead in grade level. And while I think it has been difficult overcoming this

awkwardness of being the person teaching and interviewing them on new concepts that they've learned, I hope that the importance of the subject as well as my openness with wanting to help them learn will allow for a more comfortable space and help us in discussing and understanding their experience. I had to grapple with this understanding of having some level of authority over my peers that was rooted largely due to my experience and passion for this project which therefore made me capable of being able to talk to them about it and help them to better understand developmental theory and put it into practice.

Clark University likes to make itself known for its diversity in students. As one of the students, I am a female identifying woman of color and I immigrated to the states with my family when I was very young. My culture has always been very important to me. While I was born in the Philippines and lived in a fairly impoverished part of the city, my family and I moved to the states and started a new life when I was only three. Here, I was able to attend a good school and eventually a great college. And I have a good understanding of the fact that I never would have had these opportunities if I were still in the Philippines. I think that is part of the reason I am so passionate about working with children. Though I was born into a similar situation that many of the low-income families in the schools within Worcester, I was lucky enough to not have to endure what they did. I understand that, because of the high-quality education I received, I am able to be where I am now. That has led me to always try to remember that, while I can't necessarily relate to the families or understand what they have had to grow up with, I can do my best to work with groups that are willing to put the effort in to provide education for their children that will, hopefully, allow them to grow into confident and intelligent adults. Even if the Online Repository Project takes a while to fully be successful and may have a few bumps in giving the access to the students, it will still be a privilege for us as college students to be able to

provide the children some form of education and enjoyment that will help them grow and develop through a time as difficult as the one we are in now.

4.4 Participants

The main participants who are involved in my action plan are Clark students who have expressed interest in creating educational video content for the Online Repository Project, especially for the age range of children ages zero to five years old. They had participated in the training I conducted explaining developmental concepts that are important to understand in order to make content suitable for the young age group and they were required to attend this training before creating their content for the project. During these training sessions, we were also able to have conversations regarding their position in this project and the importance of their role as creators and teachers to young children.

Aside from the few friends and peers I was able to contact to participate in the training and create content for kids, the majority of these students had begun their work in this project through a course they were taking in the management department of Clark University, in which they were required to participate in a project that contributed to the community. What was interesting was that, since their management class was taught completely remote due to the pandemic, around half of the students I was working with were actually from mainland China and were Zooming into class, and eventually the training session, from their home country. This was exciting for me to learn as I entered each training session, because it allowed for a sense of diversity in students creating video content and that was hugely important considering the diversity of children living in Worcester. However, I also had to look at my participant pool and be wary of the cultural differences that could arise. When discussing with my peers, I wanted to

ensure that, while their uniqueness and new ideas were welcomed and appreciated, there had to be some understanding that had to be reached regarding how they would transfer these ideas in ways that would be valuable for the children in Worcester who would eventually be taking in their content.

As mentioned previously, the demographics of my participants showed that they are a fairly diverse group of college students, ranging from ages 18 to 22. While I was not able to formally collect information on the students' race and gender throughout the training, there appeared to be primarily white and Asian students and their pronouns ranged from she/her, he/him, and they/them, which allowed me to have a broader range of students to discuss the project with. I think it is very important to have this wider range of demographics such as race and gender involved in my project in order to get a broader understanding of how creating educational content for young children affects different types of people.

4.5 Data Collection

The data collection strategies I employed for my Praxis project were audio-recording and transcribing interviews that I conducted with my participants. Along with that, throughout the training I conducted, I collected observational notes based on the types of questions the students asked as well as comments they made regarding new facts or ideas they had learned during the training. Then, I was given the opportunity, with the permission of my participants, to observe their final video products and gain a sense as to how much developmental theory they were able to implement.

My interviews followed a semi-structured list of questions that I was open to exploring outside of depending on how the interviews went. I asked the participating students questions

regarding their experiences, first in choosing to create content for young children, then how they felt about the training they went through before beginning the project. I also asked them how they went about creating their videos and what their experience, if any, is with working with children. After these questions, I asked them broader questions that have to do with the way in which practicing teachers are not often trained with developmental milestones and concepts before going into the classrooms - even teachers of students as young as six years old - in order to gain their opinions of this phenomenon.

4.6 Data Analysis

The data I analyzed came in the form of transcriptions from interviews and observational notes I wrote after going through the training with the participating students, as well as notes from watching the videos they had created for the project. I then analyzed all this data in order to gain an understanding of the experience the students had in going through the training as well as working on the video content for the online repository. In analyzing my data, I examined what it was like to create educational content for young children by students who may have had little to no experience working with children in the past. From what I understood from the training, many of the students were unfamiliar with the developmental concepts that are necessary to understand in order to teach young children. I also wanted to learn their opinions on the fact that many working teachers are also rarely trained in these areas and have to make decisions based on their own experience and use these perceptions to add to my own personal theories and wonderings of how teachers should be trained with more knowledge of developmental ideas instead of solely curricula.

As previously mentioned, I understand that I am not an expert on developmental theory or child engagement. My methods for examining my notes from my project and my participants' data were based largely off of past theories of understanding and studies on child development and preschool students in the classroom. Markers that I used that indicated to me that the Clark students had successfully incorporated a higher understanding into their videos were outlined by the training presentation I had shown them (Appendix A). This included practices such as using simple language and explaining the reason behind actions in ways children would understand. Along with that, making sure that physical activities that were presented were appropriate for specific age groups, such as how a two-year-old would be less capable of balancing or following two-step directions like a five-year-old would be able to. Finally, it was most important for me to observe the affect that the students presented during their videos and the dialogue they used. As they were encouraged to use more positive and pleasant language and facial expressions in order to comfort and engage with the children, I wanted to make sure to focus on those findings in order to see the results of my intervention and whether or not it was successful.

5. Compiling Results: Objectives for Change and Action Procedures

“The goal is to turn data into information, and information into insight.” – Carly Fiorina

The main goal of my praxis project was to help teach and prepare college students who have less experience with children to create developmentally appropriate educational video content that children in Worcester will be able to access using an Online Repository. In this way, students at Clark would have a small taste of the intricacies that go into being an early childhood teacher and understand the level of understanding and care that goes into providing developmentally appropriate content for young children that is both engaging and interesting for

them. I would hope that, by providing an Online Repository of educational content for children to use as academic support or entertainment during the pandemic, teachers and parents who may be struggling with teaching remotely and nurturing their children would have the ability to use this content as another form of education for their kids.

After having worked at a childcare center as a preschool and infant/toddler teacher for several years now, it has been evident to me that accessible and quality care and education offer many advantages for children, especially those from low-income areas or whose parents work for the majority of the day. Much of my research has defended this, as many have questioned the effect that preschool education has on children's growth and most have found similar results in which the quality of the education and understanding that goes into it is the tipping point in whether a child grows or falls developmentally. The literature has definitely supported these ambitions as researchers have studied the benefits of providing developmentally enriching content to young children, especially in ways that are more entertaining to them but still encouraging their brains to think and learn new things (Flook, 2013).

5.1 Goals for Change

While I can argue that my research has the potential to have important, long term indicators of success, I have struggled to decide what results I can find outside of the project that would show its values. I think the most apparent indicators for direct success would be whether or not the students I am training feel like they have learned anything new about child development and if they think it will follow them later in life. Then, I would be able to observe their final videos for the project and investigate whether or not they did succeed in providing entertaining but educational content that is consistent with developmental theory for children

ages zero to five years old. However, in this same school of thinking, it is difficult to find if my peers had learned a depth about child development solely from self-report and from a short video. Instead, I would have to assume that, if college students were to learn new knowledge and practices about developmental theory that they had not known previously, then they may feel more confident and capable of successfully creating child-appropriate, educational content.

Therefore, I do believe that other longer-term impacts will exist that are difficult to measure. If this project and the videos students provide are able to support teachers and students in their education in any means, then I would consider it a success. And while that not happening would not necessarily indicate failure, I think that any positive outcomes for parents, teachers, and children in Worcester would be an incredible outcome. While I'm not positive that I would ever see that or the Online Repository Project will be an ultimate success, I think that any movement forward in pressing the importance of providing supportive education for those who are struggling can count as a major success.

My theory of change was that if I were to assist in teaching college students how to create educational content that is both entertaining and developmentally appropriate for children ranging from ages zero to five years old, then I would be able to see the benefit it has not only on the Clark students learning how to better provide for the needs of young children but also for the teachers, parents, and children in the Worcester community who are struggle with living and learning through a pandemic and require as much support as we can give them.

5.2 Action Plan

At the beginning of my work as a CYES major, I had joined Clarks' Childcare Exploratory Committee in their efforts to propose an on-campus daycare service. I had planned

to do my part in the committee by helping them in creating a proposal to present to Clark's administration in order to get the conversation started on building a daycare service on our campus. This included doing the research for how daycare curriculums are created, interviewing faculty and staff at Clark about their opinions on the necessity for an on-campus daycare program, and observing other college campuses who already have a daycare service in place and learning how they started the process of creating that space. My hope in participating in this project would be to play any part in providing safe, dependable care not only for the children of students, staff, and faculty on campus, but also for potential Main South parents who could find support within their own neighborhood. However, due to the pandemic and the changes that had to be made in many institutions in order to maintain a safe environment for the students, staff, and faculty, Clark decided that proposing a daycare service on our campus would not be a feasible option for the near future.

In spite of that change, there were members of the Childcare Exploratory Committee who decided to shift gears and begin working with other educators in Worcester in order to find other means to support parents and teachers in the Worcester community. As I was interested in continuing to work with these efforts for the greater Worcester population, I was led to a group of college faculty members who were working on an Online Repository Project, which had an end goal of creating an online database for students of all ages to find safe and educational content that can assist them when going through remote learning. In this organization, I was given the responsibility of helping to recruit college students to begin creating the video content, specifically content that would be appropriate for the youngest age groups, because those were age levels that not many felt comfortable creating appropriate content for.

5.3 Developing a Training Program

After these events, I worked to create a training that would be accessible for Clark students to use as a guideline for important theories in cognitive, socio-emotional, and motor development for young children so they can begin understanding the different capabilities that children have at such an early age range, as well as how to best engage with these children while presenting them new information.

As stated previously, the bulk of the training I had created was based on my own research and understanding in developmental theory and experience with engaging with infants and preschoolers. The slides I presented as a guideline for my training program (Appendix A) included notes from different theories and milestones for children's motor, cognitive, and socioemotional development, each providing examples of different abilities and expectations for young children at different ages. It was important for me to stress that, at each age, infants and preschoolers begin developing new capabilities and understandings, whether it be remembering names and colors or learning to cooperate with their friends and siblings. The slides also provided insights on how to interact with kids even through a screen, and we further discussed how children respond best to positive language and entertaining communication.

The model for my training was largely based upon classes that I have personally taken on developmental theory as well as discussions I have had with my child development research group that I have been a part of since my sophomore year. By putting myself in the perspective of the Clark students I had been teaching, I had to understand that they were sitting where I was when I had taken Developmental Psychology when I had first started gaining interest in the subject. I had to go through the very basics of theories in cognitive, motor, and socioemotional development before finding myself capable of really discussing it and thinking critically about it.

Because of that, I really wanted to base my training on learning the fundamentals and drawing out their questions and curiosities before letting them create their own content. Along with that, I had to push them to gain an awareness of what types of contexts the Worcester children they are creating videos for reside in and how the resources they may or may not have access can relate to the content they want to create. It was important for me to be able to prepare my training for open discussions and give my peers more of an opportunity to question and discuss rather than lecture them on the intricacies of theories. I personally learn best when I am able to talk through what I am understanding and what I am not, and I wanted to be able to share that strategy with the students I was teaching. While I knew that each session was going to be short for the sake of scheduling and grasping information, I wanted to have more of a focus on drawing from what each student was comprehending instead of solely how I was teaching the content.

5.4 Recruitment and Training Process

When I had joined the Online Repository Project in the beginning of fall semester, I had difficulties planning how to recruit Clark students to make content for the project during an already stressful semester with the pandemic and many students already having busy schedules. In the end, as I mentioned previously, the majority of students I worked with had been from a management class, and were required to do a project that contributed to the Worcester community. The students who reached out to me had chosen to work with the Online Repository Project and were sent to me by the professors who had also been working to recruit students to make videos. Besides those students, however, I was also able to bring in a few of my own peers and friends who were available to create content for kids and they were also interested in helping the community. With these groups of students, I was able to begin scheduling training sessions

by the middle of the semester, which also gave the management students enough time to learn the fundamentals of developmental theory before creating their videos for class credit.

I was able to go through four zoom meetings with the students in order to better discuss the importance of creating developmentally appropriate content when completing their videos and they were able to ask me clarifying questions as well as bring up potential topics for them to use. After that, they were left to plan and create their videos and I was able to observe their final products and recruit several of them to be interviewed in order to understand their experiences and what they felt like they might have gained from the process.

While to many of the students, this was a simple project to help in the community where they were able to bring some fun into kids' lives, I wanted to help them understand that their work was just as valuable as any other community engagement and even the simplest of content had the ability to greatly influence children who may be struggling and help them learn and develop during an already stressful and difficult time. The results of these findings indicate not only progress in their understanding of the importance of early childcare education and children's developmental learning, but also an appreciation for teachers today and how their interactions with young children imply a solid baseline for the future of the kids in our society.

6. Analyzing the Results: Student Experiences and Insights

“Things get done only if the data we gather can inform and inspire those in a position to make [a] difference.” – Mike Schmoker

6.1 Choosing Process

An important part of any process is the beginning. How it starts can often define how it ends and the entire journey to reach that ending. A very salient part of this project from the very

beginning was gaining an understanding as to why these Clark students wanted to take part in this project and how they were feeling going into it. I had already understood that, for most of the participants I was working with, they had been in groups for a specific business management course and were required to contribute to a project that helped the community in some manner. I can imagine that there were several options that were given to them and one of the options was creating videos for the Online Repository Project. When I had spoken to many of the students during our interviews, they had made it abundantly clear that choosing to create videos for kids just seemed like an easier option to go with and would, hopefully, be entertaining while also getting them through their project requirement. As one participating student, who was reflective of most of the participating students, stated:

When we were given all these options for class on what projects we could do, this was the only one that seemed like it could be pretty fun and not that difficult. I mean I didn't know we'd have to go through training and all that but that ended up being kind of interesting. And I thought it would be fun, just making videos for little kids, nothing too hard about that. (Male, Sophomore Clark Student)

Truthfully, after finding that out in the beginning, I was very open to this sort of attitude. I believe that going into a project like this, with an easy-going attitude and not being worried about the process, was the best way to start because making videos for kids should be fun and simple, so long as the thought process conducting it was done with care and appreciation towards the craft itself.

Even within the first five minutes of talking during the training about why they were there and what their plans were, there was a very obvious atmosphere of hesitance and unsureness towards the project at hand. I had definitely expected this, given that most of the

training sessions were very quiet up until I encouraged them to ask questions. In fact, I think I had expected this hesitancy and flippancy more so than enjoyment or ease. I had taken note that, in all of the sessions I conducted, there were questions such as “how do we even start?” and “why are we doing this, anyways?” in reference to the training. And these questions were all asked with respect and curiosity, which was well appreciated, but there was definitely a level of disregard towards how complex the project itself was and many had admitted that they didn’t fully understand why a training was necessary. There was also a general consensus that many of the students in my training had little to no experience with kids, and this information was reinforced during many of my interviews.

I had found that the majority of the Clark students I taught had, at most, the experience of working in summer camps or tutoring kids and other teenagers when they were in school as well. For example one student stated:

Oh I used to tutor in high school and everything so I’ve got some experience with teaching people things, not kids though. But I figured it would be easy enough.

They kind of reminded me of those videos from KhanAcademy or YouTube that teachers made us watch to get things better, you know? (Male, Sophomore Clark Student)

For the most part, most of these were students going into business or marketing and were not necessarily interested in teaching or working with kids at any level. And, while this made it slightly more difficult to find out how to get onto common grounds with them, they remained open to the concept of the project and seemed ready to work on it with what little experience they might have had. Another example of a student who had little experience with children was as follows:

I worked at a summer camp for all of high school and I went there for my whole life so I knew the kids pretty well. I was in charge of the littler kids, I think they were like 7 or 8, and I got pretty good at entertaining them and dealing with them in general. So, like, I don't have much experience teaching but I do like kids. (Female, Sophomore Clark Student)

Now that I can look back on how the training went and have the responses for students who had taken part in it and saw the project through until the end, I understand that having little experience was not as daunting as it might have seemed, both for the Clark students and for myself. While it must have been intimidating or even bothersome having to attend the training in the first place, I found that we were able to have very insightful conversations before even breaching the topics of developmental theory and how to teach children. For many, a solid reason as to why they wanted to pursue this project was because they wanted to do something to help the kids in the community. With the pandemic causing so many upheavals in school systems, especially like the ones in Worcester, they believed that this was a small way to provide any sort of support for teachers and kids. Four students had repeated this sentiment in stating that a major part of their decision to follow the route of the project was because they wanted to help the kids in the Worcester community, especially since they had gone to school in this area for over a year. I was able to find that a significant reason for these feelings towards Worcester students was because all four of these students had taken classes at Clark regarding the city and culture of the students, causing them to feel a stronger connection to the project.

It felt very important for me to acknowledge those concerns and feelings that my peers had in order to help them feel more confident about choosing to help with the Online Repository Project. Both during the training and at the beginning of the interviews when this subject came

up, I was eager to have conversations about how what they contributed may seem small, but they had the potential to be large supports for teachers and parents who needed other forms of entertainment and education that can be provided outside of their Zoom classroom. That message was found to have brought light to the short term and long term effects this project could have, and I was able to note that, after discussing that before diving into the training, most of the Clark students seemed to have loosened up to the idea of making the videos and they looked more prepared to take on a project that had this sort of significance. As one participating student later acknowledged, “I guess I didn’t really know what I was getting into but I was open to it” (Non-Binary, Freshman Clark Student). This student’s comment was similar to comments made by four other participants. Others came to see the value and relevance of the project over time as this student described:

I’ve never had any direct experience working with kids. I have younger brothers so that’s my experience dealing with them, but I’m not really interested in working with them directly, no. I live in the city though, kind of like Worcester, I always saw the kids playing on the street and stuff. And my brothers’ friends too, and I see how they have a hard time with school. So I, uh, guess this was important to me because of that. If I get the credit for the project and help kids along the way, that’d be pretty cool. (Female, First-Year Clark Student)

In both of the above responses, that really were reflective of many of the respondents, we see a certain ambivalence in signing up for this project. But as they go through the process, they come to see the potential to help the younger children and become open to the process, and even come to consider this work to be “pretty cool.”

6.2 Learning Fundamentals

What was very striking and almost thrilling when starting this project was that it really meant throwing myself and my peers into the absolute basics of developmental theory. An understanding had to be set that, while I may have had more experience both working and teaching kids and studying Developmental Psychology, I was also a student acting almost as a teacher to my fellow peers who were attending a training with me in order to learn about developmental theory and how to best provide a short snippet of educating content to young children.

During the training themselves, I took notice about how several of the students took notes about what was on the slides and what I was explaining about children's capabilities, especially in terms of cognitive and socio-emotional development. There were many questions asked about how children best learned colors and remembering names of objects at different stages of development. They also collectively emailed me later on asking for copies of the slides so they had the ability to use them as a reference for when they were working on their videos. Later on, during the interviews, I asked about what they thought about the training and the new ideas they may have learned and a few of my interviewees had mentioned how much more complicated kids were, especially in terms of teaching them potentially new information. There were conversations specifically about how they didn't realize how "human" children actually were and how much attention to detail a person has to put into talking to them and helping them to understand new things. For instance, one student said, "I didn't even know where to start for coming up with video ideas before the training so I'd say it was pretty helpful.... I didn't realize it got so like, extensive? Like kids are so much work" (Female, Sophomore Clark Student). Another student went further in unpacking some of the assumptions that the training undid:

Honestly I had no idea kids were so complicated [laughs]. Oh! Something I wanted to mention that really really stuck out to me was when you talked about how two-year-olds could actually be really self-aware and feel, like, empathy? I guess I always saw two year olds as babies and not as like, functioning humans, that sounds bad doesn't it? But it's true! And I definitely learned otherwise. (Non-Binary, First-Year Clark Student)

It was definitely good to see that the short training made them understand the complexity of human development for young children and to begin to undo some of their false assumptions.

Of course, developmental theory definitely takes more than just a thirty minute training session to be able to fully grasp and understand in order to put it into practical use. I was very aware of that when creating my training and going through it with the Clark students, therefore I had to form my teachings in a way that would be most beneficial for them in creating short videos for the Online Repository Project. Because the slides I had written up for the training had more of a guideline of information for each lens of development, I was able to open up the training as more of a discussion-based work session where I was able to encourage students to talk to me about their questions and ideas so we could work out how to best manifest them in their creations. I found that this was an effective way to get them to understand the developmental concepts and processes as it put the theories into real life situations and examples that would make sense with their projects. It also helped when I had them put themselves in the headspace of teachers in a classroom, and have them imagine their video idea as a lesson plan. And, while it made the training a little more fun and silly than I had planned, it showed to be pretty effective in terms of getting them used to the language that should be used when explaining concepts to kids and putting them in the mindset of preschool teachers for just a few

minutes. Another student had said the quote below, which encapsulated an attitude that at least six other students seemed to have during the interview in regards to how learning about development and children's mental and physical progress really challenged their assumptions for how children grow up:

It was really helpful actually and I thought it would be kind of lame, no offense. But I just didn't think it was interesting or like difficult enough to have to learn about but after it I realized - wow I had no idea what I was doing [laughs]. But you like answered our questions and gave us some really good examples so it ended up being pretty fun, you know thinking about videos that would make kids happy and all that. (Male, Sophomore Clark Student)

I was surprised to find that teaching the students the fundamentals of developmental theory and teaching children became less about reading up concepts and practices and more about getting them in the attitude of being a teacher. This became even more important later on and taken up in the following sections, as I discussed with the students about how their part of the project related to real world skills, and how learning the fundamentals is just as important as completing the project when it comes to working with and teaching children.

6.3 Putting Skills into Practice

While my praxis project was centered around teaching fellow students how to create content for young children and learning about their experience, the Online Repository Project itself centers around the actual content that was made. I think it is important to consider that aspect in my findings because, if the content was not actually beneficial or appropriate for the children, then the training would not have been effective, regardless of what the students said

regarding their experience. That was definitely a balance that I had to come to terms with during the process, because as much as it felt rewarding hearing that my peers had learned new things and felt like they did a good job, there was always the factor of whether or not their content would actually be developmentally appropriate and engaging for the young children in Worcester. But there was always the factor that I was only able to provide them with thirty minute training and they could not have possibly become experts in that span of time and that was perfectly okay as well. Indeed, this project is helping to assess whether even learning a little about development theory would help the participating students improve their videos for young children.

I was lucky in that, before submitting their videos to their professor, most of the students who I had worked with in the training had given me access to their videos to watch and look over for any improvements or edits they could quickly make before handing them in. This was not only beneficial to them for getting credit for their work, but it was also very interesting for me as it gave me the opportunity to see the fruits of their labor and find just how much developmental theory they were able to understand and transfer into their videos. When watching them, it was definitely clear that some had a very enjoyable time making the videos, given their upbeat and optimistic nature of their voices as well as the intricate stories they would tell during their short creations. Their topics ranged from talking about pets and animals to shapes and colors to princesses and their cultures. The video on princesses and their cultures, in particular, was fascinating because this student was able to take these beloved characters and describe where they were from and what foods they would have liked to eat in that place. The idea was incredibly creative and was still articulated in a way that made it easy and fun for little kids to understand. And, while I was not able to interview that student in particular, it was a very

influential finding that showed how a person was able to absorb different methods and means to teach children new information while getting down to their level and being passionate in their efforts. Along with that, they also did a good job in recognizing a subject that children of any area would understand and relate to.

The following quote was from a student whose video I was able to analyze, and within her creation she was able to use simple language to articulate how to take care of a pet to younger children. For example, she expressed directions for how to go about feeding her dog, such as preparing the food and training her dog to wait for it, by using two or three step directions, which we had discussed in the training was easiest for young children to understand and follow. She was also very enthusiastic in her video and she showed herself interacting and talking to the children as if they were with her, which would be greatly beneficial for children to engage in later on. She mentioned in her interview that she hoped her video would be useful for the kids and actually teach them about animals, as it became important for her as she went about the process of creating her video:

I mean they're pretty silly little videos. I made mine about walking my dog and taking care of my dog and I think it was pretty cute. I guess it could help kids learn how to take care of their pets if they have them or if they get one someday. That's what I'd hope for at least and if it does that then that's actually pretty cool. (Female, Sophomore Clark Student)

Another student had a similar experience, as they made a video about different shapes and colors and used examples around their house as ways to explain to kids how to find them in real life.

This student was definitely able to employ some of the aspects of my training, because it showed how they repeated the words to help memorization as well as how kids could relate to the shapes

in their own life and with toys or furniture around their home. The quote below shows how this student found enjoyment in their work to create educational content for the kids, and I would agree that their content has the potential of being informational to help children practice the new concepts of shapes and colors in more entertaining means:

I made my video about shapes! Like they're names and different colors and different things around the house that are those shapes. I had way too much fun making it [laughs] but yeah I think they'd be pretty useful for the little ones. I hope so at least. Kids could use content that helps them learn things instead of those unboxing videos or whatever on YouTube. (Non-Binary, First-Year Clark Student)

As I spoke about the experience of going through the process of putting their new knowledge into practice and creating their videos, I was able to talk to the students about what their thoughts and feelings were throughout their efforts of creating the videos. A common theme that came out of it was that, while it felt silly making a lot of the videos and their roommates had definitely not understood what they were doing, there was also a sense of determination in themselves that was not present at the start of the project. They talked about how going through the videos and having to be conscious of how they were talking and how kids would react to it made the situation much more real. It became more than just a silly video that their professor was grading but a video that had the possibility of actually going out to young children and providing them some sort of entertaining education during a time when people are not as happy or productive as usual. And it was uplifting getting that feedback from them, such as the one quoted below, indicating that this did become an important project that might have seemed easy and simple but did have deeper meaning.

Oh I think something like this is so important. Being a kid during a pandemic must be a struggle, like having to learn everything online and never getting to see anyone and actually do anything? I wouldn't be able to do it. It's cool that we could make these little things that could at least make them happy and even learn a thing or two. (Male, First-Year Clark Student)

While I was content knowing that the Clark students had actually enjoyed this project and felt like they did a good job, I also felt a sense of pride knowing that a lot of them revealed a grasp of what I had discussed with them during the training. There were one or two videos that definitely felt more awkward and forced, which was expected, but they still showed an understanding of the goal of the project and could still be taken on well by children in Worcester. An example of this that I was able to observe in two videos, one focused on teaching kids about how to do stretches and the other about the life cycles of a butterfly, was that, even while the students' affects and inflections were more monotone and simply went through a script for their videos, there was still a level of attention that went into how they went about telling directions and the type of language they used. While it was not as enthusiastic as what kids may usually enjoy, they were able to focus on explaining their content in ways kids could understand, which is one of the most important parts of the process.

I think a good piece of advice that they had followed was putting themselves in the mindset of teachers going through a lesson plan because, even if they had no intentions of going into teaching, that was a foundation that they could start with having been in classrooms for so many years as students. The videos may not have been perfect, especially with their little experience with children and only having begun with learning developmental theory, but it was

important to recognize that kids do not take notice of excellence, and any effort put in is just as impactful as perfection.

That being said, however, there were definitely some videos that I had watched from the training that I would consider outliers. It was not that they were inappropriate or not child-friendly, but rather that they were fairly boring, and I was unsure as to whether they would transfer well to the children watching it. The affect of these videos was very monotone and dull, giving away the idea that maybe that student was not as passionate about the project as others. There was also one video I analyzed in which the student was teaching the basics of chess, and while the subject was interesting and even I learned a little bit about the gameplay, it definitely wasn't developmentally appropriate for children. However, out of the two or three videos I had watched that seemed worrying to share with children, solely based on the lack of excitement or developmentally appropriate content, I was also unable to set up interviews with these students. This wasn't so much of a problem as it was an unfortunate as much as it was slightly disheartening, as it indicated that not all of the students, I was able to train really understood the importance of the subject and how they were potentially affecting children later on.

6.4 Real World Connections

This leads me to the last area of findings that I believe are very relevant to my project. While it was less related to making the videos themselves or learning developmental theory, my peers and I were able to have many discussions regarding the state of the world right now and how we are in a position in which we can support Worcester teachers and parents who are working tirelessly to make sure their students and children are still learning and growing as best as they can. There was fairly mutual feedback between the students that children are a lot more

complicated than they had originally understood when going into this project. They were able to learn a little about how young children, especially at infancy, are learning every day with every new piece of stimuli that is presented to them, making it imperative for us as adults to constantly be their teachers and promote positive growth and learning for them. In asking about what they gained from the project, one student said the following, which was reflective of all of students' feedback of the training and the project overall:

Probably just that it's a lot of information to learn. Again, they're so much more complicated than I thought and I'm sure a lot of people think that. Like you'd think babies just lie there and cry and need to be fed and changed and stuff but they're actually learning so much over time? That's crazy. (Non-Binary, First-Year Clark Student)

When asked about what kind of advice they would give another student working on this project or even a student working to become a preschool teacher, there were several interviewees who were still surprised at how much was gone over during the training and how much they had to contemplate when creating their videos. There was a fairly collective opinion that most of those who had worked on this project still had no intention of working with kids, which was completely understandable. But it was interesting and uplifting to find that they also had a greater respect for those who do work with and take care of children on a daily basis. Many had shown to have a better understanding of how attentive preschool teachers have to be and the degrees of understanding the constant development that occurs with kids, especially when there are many of them in one classroom and all of them are separate individuals that they have to understand and take note of. While it was funny knowing that this project almost scared some of them into not going into the early childcare field, I was glad to see them finding a connection

they now had with teachers and the stronger appreciation for the complexity of the early childhood education field, such as the comment quoted below:

Um, I don't know about advice but like, we had the training for what, 20-30 minutes?

And we talked about so much. I could never work with little kids all day. There's so much to like, watch out for like you said and things to notice that they do or need. I feel like I need to give teachers and parents so much more credit. (Male, First-Year Clark Student)

Another student further emphasized their greater respect for teachers, especially those working in the classroom, or even remotely, during the pandemic. She talked about how this project and the discussions we had encouraged her to recognize the support that teachers needed, and she repeated below that she believed they deserved more credit and support from others:

Oh my gosh I think teachers deserve so much more credit [laughs]. I can't imagine having to take care of so many kids and know that all of them are so different and have different needs and all that. They definitely deserve more credit than they're getting, especially with the pandemic. I'm sure it's ten times harder for them and they're still not getting the support they need. (Female, First-Year Clark Student)

Something in relation to this that I was only able to bring up during one or two interviews was the understanding that there are many teachers in elementary schools nowadays that were not given the type of specific, developmental theory training like the students had experienced a fraction of before creating their own content. If it came up in the conversation, I was able to talk about how many teachers are made to gain their own understanding of child development during their years as a teacher, but most are only required one class on general human development before getting their own classroom, which can lead to a struggle in forming connections and understanding the reasons behind some children's behaviors or patterns in learning. The Clark

students I was able to talk to about this were pretty surprised with this information and were confused as to how that was the case, considering they had learned more than they expected about the intricacies of how children develop while in school. And, though it wasn't too salient for their portion of the project, it was interesting gaining that response from individuals who weren't necessarily involved in education or teaching but still cared about the subject. It brought on questions about how becoming a teacher works and how much effort goes into being more than just a dictionary or lesson plan for kids. There are aspects of understanding human beings that are just as necessary and effective and that seemed to be an important point for the participants to make when discussing this real world issue. The quote below depicts one interviewee who was greatly perplexed by learning this and largely questioned how this concept could be happening in actuality with teachers working with kids today:

Teachers don't get to know some of this? But, like, they teach kids this age, so shouldn't they get to learn about how the kids learn and play and all that? And behave? That's crazy that they can't get that kind of support from the schools, and you said it wasn't required for a lot of teachers? How does that work? (Male, Sophomore Clark Student)

The final topic that was brought up during these conversations were in regards to teachers today and how much they are doing right now to continue supporting kids in Worcester. I thought that it was important for me to stress that, if their videos were to go into the Online Repository and shared on that accessible website, then parents and teachers would have the opportunity to use this content as a means to show their children and students educational pieces that are also entertaining. During the pandemic, kids are in need of ways to remain busy and be entertained and adding that level of learning to it is incredibly important when so many are unable to be in a classroom and interacting with their peers. Along with that, we discussed how

teachers may be able to use these videos as a support for their lessons so they have the ability to focus more on their students and help them through issues they have that they may not be able to bring up during busy learning days. Children need just as much nurturing as they need education and, if these videos can be used as a way for teachers to enforce learning while taking care of them, then it would be just as significant as being in the classroom themselves. Especially in areas like Worcester, where children are not able to receive as much educational content that is provided by the school system, the younger kids really need this extra form of engagement that can provide positive learning. As we talked about the importance of teachers and their relationships with children, there were a few Clark students who talked about how, while they would not be able to form connections with Worcester kids through their videos, they were glad they may have allowed for others to do so. Some, like the student quoted below, were even optimistic for themselves and if they were to have their own kids one day, because they have a foundation that they could build upon in order to best know how to take care of them.

Well, like I said before, I think I learned a lot about kids since I didn't know much about them before. This is kind of weird but I guess it made me feel good that I can, hopefully, have all this in the back of my mind if I have my own kids so I can take care of them the right way, you know? I'm glad I got to be a part of it. (Male, First-Year Clark Student)

Hearing about the many ways this knowledge can help them for their possible future roles as parents was a very unanticipated benefit to appreciate. This shed some light on the future for kids and how people can best learn to take care of them and provide them with not only the best education for them to gain, but also the best means to nurture them into good human beings along the way.

7. Drawing a Conclusion

“Conventional wisdom nor scientific, mathematical proof of randomness in life could do nothing to deter human's curiosity for the unknown, however small the chance of a positive outcome may be.” — Vann Chow

The purpose of my praxis project was to improve college students' understanding of developmental theory as they created educational video content for children ranging from ages zero to five years old. The overall goal was to incorporate these videos into a collection within a database that can be provided for teachers and parents in order to supplement their students' and children's access to a repository for educational content. My role in this project was to provide students at Clark with a training in which they were able to ask questions about how to best create videos that were developmentally appropriate for very young children in the Worcester area, as well as understand the different levels of development that these children were in and how they were best able to take in new knowledge. During the training, students also had the opportunity to talk about the important position that teachers have both in children's academic success but also in their developmental progress. It was stressed to these students that the role they were playing in providing these videos for kids is that of another teacher, a person who is working to provide them some sort of educational entertainment that was geared towards helping them learn, whether it be cognitively, socio-emotionally, or in motor development.

The results of this project showed that, collectively, the students that I had been able to interview felt like they had learned more from the training and throughout the process of creating the videos than they had initially expected. Students were quoted to have felt unprepared and unaware of the work that went into teaching infants to preschool-aged children and felt like the training and conversations we were able to have helped them gain a comfortable understanding

of how to go about the project. Along with that, they said they have gained a deeper respect for teachers who are working to continue educating and nurturing young children during the pandemic. I have come to understand that, while this work was not necessarily groundbreaking or transformative for any individual or group of people, it was fascinating being able to see the growth in my peers even for a smaller project as well as helping them gain the knowledge to appreciate the work that teachers put in every day to ensure the well-being and development of their students.

Overall, I think there was a collective finding in my data that college students who had little experience with children truly did not know the intricacies that went into properly educating young students and providing them with content that was both enjoyable and developmentally appropriate. From my notes taken during the training by themselves, it was clear that all ten of the Clark students I had started working with had very little confidence in their abilities and had, understandably, believed the project to be fairly simple and almost silly. However, as we went through the important concepts and theories to know in order to succeed in the project and had conversations about what the work was good for, they showed growth in their opinions and their perception of the subject.

Later on, both in observing their final products and discussing the project with them through their interviews, it was evident that they did have at least a grasp on what their goal was and how to reach it. While I am still a student and not able to grade or judge their work professionally, I thought that the videos they made would be very enjoyable for young children and would still provide some new knowledge for them to take in. Even the simplest videos about shapes and colors that show the enthusiasm for learning new things are strong building blocks to cognitive growth and memorization.

That being said, there were two or three videos from students that were somewhat worrying to share with children and showed the opposite of what I was gaining from the students who had done well with the project. They showed a lack of understanding of developmental theory and child engagement as their videos were fairly lackluster and too developmentally advanced for the young age they were making it for. And, unfortunately, I was also not able to contact these students later on for an interview in order to get a better understanding of what they may or may not have understood when participating in the project. It would have been interesting to get their insight on where they may have not had passion for the project or where they misunderstood the developmental theories, as it would help with teaching students later on to make sure the content that is being created is focused and beneficial for children.

Being able to talk to the Clark students I worked with was especially beneficial, because we got to talk about how they felt outside of the experience and what they were able to take away from it. And, as I mentioned previously, this experience gave them more insight into an entirely different perspective that they likely would not have had in any other way. That in and of itself was a rewarding result to come out of this, because it's important as human beings to be able to empathize with each other's struggles and have a respect for the work we're doing to help others.

7.1 Implications and Further Understandings

The theoretical implications of my project seem to support my original concern that people who aren't as educated in teaching or work with children know little about the intricacies that go into providing them education that will help them grow and continue to learn. And, while it isn't necessarily a bad thing that people aren't as knowledgeable on how kids work and learn

best, it is still important for people to have at least a baseline in understanding how to talk to and interact with children for their own futures, whether that be in raising their own kids or taking care of others. The literature around child development and concepts such as encouraging positive engagement and interest is essential when teaching young children and being able to study and understand that only helps in fostering better relationships and stronger development for kids in the long run (Pasta, et al., 2013).

Another important implication that this study revealed is just how underrated and unsupported teachers are today. Even with the pandemic causing more parents to be aware of just how much work teachers put into both teaching and caring for their children on a weekly basis, there are still those who believe it to be a less intensive field, causing the job to get less credit and therefore earn less wages (Rowan et al., 2005). The students who worked on this project with me were attentive and respectful because they had struggled to come up with ideas and understand the language needed to make a single educational video. Realizing that teachers have to come with daily lesson plans for multiple subjects while also paying attention to the needs of their students caused many of them to take a step back and really understand the level of effort that goes into being a teacher. It is not merely about regurgitating information and enforcing curriculum, but about creating nurturing environments that foster learning and growth and it is important for more people to be able to see that.

7.2 Significance for Teaching

My praxis project gave me the opportunity to feel like a teacher who was teaching future teachers. As much as that is a mouthful and does not make too much sense, I thought it was really valuable that, as a college student who is studying to potentially be a teacher and is very

interested in developmental theory, I was able to share what I was learning with others in hopes to influence their mindsets on educating children. I think that, if anyone wants to help to create educational content for any age group, it is necessary to understand the theoretical frameworks that go into the different levels of human development for the students they are working with. Even for my group of Clark students, none of whom were actually interested in teaching, it was evident to them that children had different capabilities and their responsibility for their videos was to get down to their level and teach them in ways they would understand.

Without reaching too far, I think this project also sheds some implications for current teachers and students educating themselves to become teachers in the same vein. While it is important to be able to understand the curriculum that is required for the school and how to best create structures and environments that are suitable for all kids to learn it, it is just as important to be able to form relationships with students and understand where they are developmentally in order to best know what they're thinking and how to respond appropriately to their needs. If schools were to provide better support for teachers' professional development and to have time to develop developmentally appropriate strategies to help their students succeed both academically and through their own personal growth, it would pave the way for stronger learners and better people, which is what most teachers hope for in their students.

7.3 Limitations and Future Directions

The findings that I was able to collect through my research were understandably limited due to the total number of students I was able to teach and interview being too low to have any real significant results in terms of correlations or group progress. In addition, I am aware that I am still a student who is not certified nor qualified to actually teach developmental theory to my

peers. I would hope that my training was effective and valuable to them, but it was never guaranteed that it would be as effective as a certified developmental theory class or training. The training sessions were also fairly short and I am positive they would have been more effective if given more time to discuss as well as provide several sessions in order to ground the fundamentals with more time in between to better research and understand. However, given the time constraints and clashing schedules, that was not completely possible for this study.

Needless to say, my results were purely qualitative and I simply had to trust that the students I spoke to both during the training and interviews were genuine in their interest and their descriptions of what they had learned from this project. I can only hope that they gained as much respect and appreciation for the field and current teachers as they said, but there cannot be a guarantee. Also, of course, we do not know if any of these lessons or insights they gained will be retained into the future, for instance, when they may become parents. However, I was able to triangulate my findings of what they had intellectually gained from this project through my observations of their videos and the progress they made in understanding the complexity of child development.

There is also the issue I mentioned previously, in which two or three of the videos I had analyzed for my project did not show developmentally appropriate content nor work to actively engage children watching. As I was unable to interview the students who created those videos, I have no way of knowing where the training may have gone wrong for them or where their opinions lied on the importance of the project and how it was helping their community.

For future directions, it would definitely be interesting to find the reaction of children actually taking in the videos and watching them on their own time. I think that would truly put the videos to the test to see if kids enjoy them and gain some knowledge for them. Unfortunately,

that kind of data was inaccessible for this project, but it would be a great way to collect information on whether or not the videos were actually as informative and effective as we hoped.

7.4 Final Reflections

The truth is that my project isn't going to change the world. I don't think it's going to change even fifty people's perspectives on teachers, not to mention populations of those who can raise teacher wages or provide better care for the little ones who need it. But, during a pandemic where kids are having to sit at a computer for hours on end, something they would usually get chastised about if it weren't for them being so antsy in a Zoom classroom, and teachers are still being paid a little above minimum wage to put their lives on hold in order to provide the best education they can through a little box on a screen, I think any recognition is enough. There are countless pieces of literature and studies that can tell a person how important developmental theory is for young children. It provides major implications for a child's growth not only in their education, but also their lives as individuals. Teachers have this position in which they can foster these complex developmental skills while at the same time introducing important academic knowledge. Especially today, teachers are operating their classroom with a smile on their face and intense care for their students, even when the world is full of so much uncertainty.

Regardless of what people say, that's not necessarily the job they signed up for. But they take it in stride and they become a child's parent even when they're only supposed to be their teacher. If I can help my fellow Clark students make silly videos about shapes and puppies and that can be used by a single Worcester teacher in order to share some happiness and knowledge to their little preschoolers so they can have more time to form those crucial connections and trust, then it was a successful project.

There's no telling how well my training will affect my peers in the long run and no telling as to whether or not it could help any teachers or parents or young students. However, I think I was able to push other Clark students into caring a little more about the littlest ones in the Worcester Community who were negatively affected during the pandemic and fostering more respect that teachers rightfully deserve for all the hard work they put in. As I have said since the beginning, early childhood education is totally foundational to everything people grow up to become and do. It may not be as extraordinary as string theory but it is just as complex, and our teachers deserve the recognition equivalent to Nobel prizes for bringing up our future leaders and scientists and doctors, all while focusing solely on the kids in their classroom and making them smile, and sometimes by simply tying their shoes.

References

- Abshor, U. (2017). The Project Approach on Environmental Education: An Action Research for Children's Social-Emotional Development. *Asia-Pacific Journal of Research in Early Childhood Education, 11(1)*, 1-20.
- Alsubaie, M. A. (2016). Curriculum Development: Teacher Involvement in Curriculum Development. *Journal of Education and Practice, 7(9)*, 106-107.
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: APA.
- Archambault, I., Vandebossche-Makombo, J., Fraser, S. L. (2017). Students' Oppositional Behaviors and Engagement in School: The Differential Role of the Student-Teacher Relationship. *J Child Fam Stud, 26*, 1702-1712.
- Ball, R.S. The Gesell developmental schedules: Arnold Gesell (1880–1961). *Journal Abnormal Child Psychology 5*, 233–239 (1977). <https://doi.org/10.1007/BF00913694>
- Bradley, C., Cordaro, D. T., Zhu, F., Vildostegui, M., Han, R. J., Jones, J. (2018). Supporting Improvements in Classroom Climate for Students and Teachers with the Four Pillars of Wellbeing Curriculum. *American Psychological Association, 4(3)*, 245-264.
- Choi, J.-K. (2010). Nonresident fathers' parenting, family processes, and children's development in urban, poor, single-mother families. *Social Service Review, 84(4)*, 655–677. <https://goddard40.clarku.edu:2097/10.1086/657422>
- Corbin, C. M., Downer, J. T., Ruzek, E. A., Lowenstein, A. E., Brown, J. L. (2020). Correlates of change in elementary students' perceptions of interactions with their teacher. *Journal of Applied Developmental Psychology, 69*, 1-11.
- Cross, T. L. (2001). Social/Emotional Needs: Gifted Children and Erikson's Theory of

- Psychosocial. *Gifted Child Today*, 24(1), 54-55. <https://doi.org/10.4219/gct-2000-522>.
- Davies, T. (2019, July 8). *Why is it so important for teachers to understand Child Development?* Fagus. <https://www.fagus.org.uk/why-is-it-importance-for-teachers-to-understand-the-child-development-stages-a-fagus-helping-hand/>.
- Dinkmeyer, D. (1967). Child Development Research and the Elementary-School Teacher. *The Elementary School Journal*, 67(6), 310-316.
- Downer, J. T., Booren, L. M., Lima, O. K., Luckner, A. E., & Pianta, R. C. (2010). The Individualized Classroom Assessment Scoring System (inCLASS): Preliminary reliability and validity of a system for observing preschoolers' competence in classroom interactions. *Early Childhood Research Quarterly*, 25, 1–16.
- Fisher, K., W., Bullock, D. (1984). Cognitive Development In School-Age Children: Conclusions And New Directions. *National Research Council (US) Panel to Review the Status of Basic Research on School-Age Children; Collins WA, editor*.
- Flook, L. (2019, April 23). Four Ways Schools Can Support the Whole Child. *Greater Good Magazine*. https://greatergood.berkeley.edu/article/item/four_ways_schools_can_support_the_whole_child.
- Foreman, J. L., Gubbins, E. J. (2015). Teachers See What Ability Scores Cannot: Predicting Student Performances With Challenging Mathematics. *Journal of Advanced Academics*, 26(1), 5-23.
- Lawson, C., Eyre, E. L. J., Tallis, J., & Duncan, M. J. (2021). Fundamental movement skill proficiency among British primary school children: Analysis at a behavioral component level. *Perceptual and Motor Skills*, 128(2), 625–648.
<https://goddard40.clarku.edu:2097/10.1177/0031512521990330>

- Lazarus, R. S. (1991). *Emotion and Adaptation*. New York: Oxford University Press.
- Lemerise, E. A., Arsenio, W. F. (2000). An Integrated Model of Emotion Processes and Cognition in Social Information Processing. *Child Development, 71(1)*, 107-118.
- Lerner, R. M., Liben, L. S., & Mueller, U., Eds. (2015). *Handbook of Child Psychology and Developmental Science, Volume 2, Cognitive Processes, 7th Edition*. Hoboken, NJ: John Wiley & Sons, Inc.
- Malvik, C. (2020, September 28). *Early Childhood Development Milestones: What You Should Know*. Rasmussen University. <https://www.rasmussen.edu/degrees/education/blog/early-childhood-development/>
- Mariano, G. J., Figliano, F. J. (2019). Critical Thinking Strategies in Pre-Service Learning Environments. *IGI Global*. DOI: 10.4018/978-1-5225-7823-9
- Morelli, A. O. (2020). *Child Development Theory: Middle Childhood (8-11)*. Grace Point Wellness. <https://www.gracepointwellness.org/1272-child-development-theory-middle-childhood-8-11/article/37673-middle-childhood-development-theory-introduction>
- Pasta, T., Mendola, M., Longobardi, C., Pino, L. E., & Gastaldi, F. G. M. (2013). Attributional style of children with and without Specific Learning Disability. *Electronic Journal of Research in Educational Psychology, 11*, 649–664.
- Piek, J. P., Dawson, L., Smith, L. M., Gasson, N. (2008). The role of early fine and gross motor development on later motor and cognitive ability. *Human Movement Science, 27(5)*, 668-681.
- Rowan, B., Camburn, E., Correnti, R. (2005). Using Teacher Logs to Measure the Enacted Curriculum: A Study of Literacy Teaching in Third-Grade Classrooms. *The Elementary School Journal, 105(1)*, 75-101.

Rucinski, C. L., Brown, J. L., Downer, J. T. (2018). Teacher-Child Relationships, Classroom Climate, and Children's Social-Emotional and Academic Development. *Journal of Educational Psychology, 110*(7), 992-1004.

Shi, B., Lu, Y., Dai, D. Y., & Lin, C. (2013). Relationships between migration to urban settings and children's creative inclinations. *Creativity Research Journal, 25*(3), 300–311.
<https://goddard40.clarku.edu:2097/10.1080/10400419.2013.813793>

Tudge, J., & Rogoff, B. (1989). Peer influences on cognitive development: Piagetian and Vygotskian perspectives. In M. H. Bornstein & J. S. Bruner (Eds.), *Crosscurrents in contemporary psychology. Interaction in human development*, 17–40.

Vandenbrouke, L., Spilt, J., Verschueren, K., Piccinin, C., & Baeyens, D. (2018). The Classroom as a Developmental Context for Cognitive Development: A Meta-Analysis on the Importance of Teacher–Student Interactions for Children's Executive Functions. *Review of Educational Research, 88*(1), 125–164.

Veldman, S. L. C. , Chin A Paw, M. J. M., Altenburg, T. M. (2021). Physical activity and prospective associations with indicators of health and development in children aged <5 years: a systematic review. *Int J Behav Nutr Phys Act* 18, 6.

Votruba-Drzal, E., Miller, P. and Coley, R.L. (2016), Poverty, Urbanicity, and Children's Development of Early Academic Skills. *Child Dev Perspect*, 10: 3-9.
<https://goddard40.clarku.edu:2097/10.1111/cdep.12152>

Wyman, P. A., Cowen, E. L., Work, W. C., Hoyt-Meyers, L., Magnus, K. B., & Fagen, D. B. (1999). Caregiving and developmental factors differentiating young at-risk urban children showing resilient versus stress-affected outcomes: A replication and extension. *Child*

Development, 70(3), 645–659. <https://goddard40.clarku.edu:2097/10.1111/1467-8624.00047>

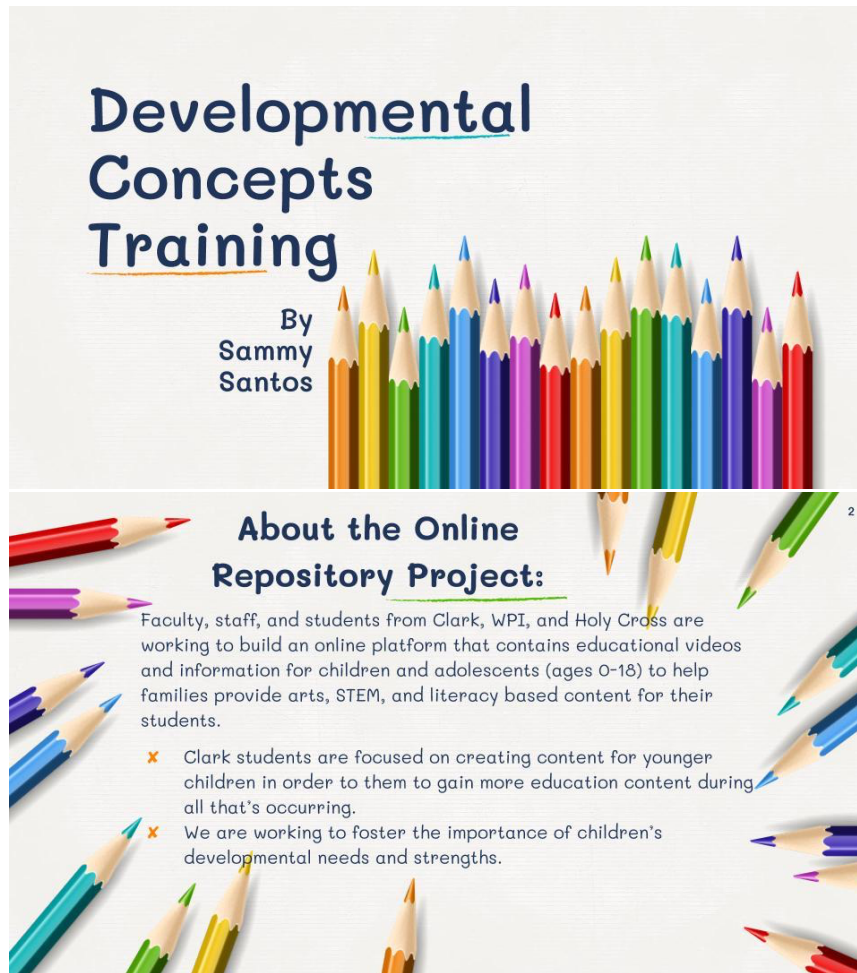
Zee, M., de Bree, E., Hakvoort, B., Koomen, H. M. Y. (2020). Exploring relationships between teachers and students with diagnosed disabilities: A multi-informant approach. *Journal of Applied Developmental Psychology*, 66, 1-12.

Zee, M., & Roorda, D. L. (2018). Student–teacher relationships in elementary school: The unique role of shyness, anxiety, and emotional problems. *Learning and Individual Differences*, 67, 156-166.

Zendarski, N., Haebich, K., Bhide, S., Quek, J., Nicholson, J. M., Jacobs, K. E., Efron, D., Sciberras, E. (2020). Student-teacher relationship quality in children with and without ADHD: A cross-sectional community based study. *Early Childhood Research Quarterly*, 51, 275-284.

Appendix A: Training Slides

(Presented on Google Slides)



Developmental Concepts Training

By
Sammy
Santos

About the Online Repository Project:

Faculty, staff, and students from Clark, WPI, and Holy Cross are working to build an online platform that contains educational videos and information for children and adolescents (ages 0-18) to help families provide arts, STEM, and literacy based content for their students.

- ✗ Clark students are focused on creating content for younger children in order to them to gain more education content during all that's occurring.
- ✗ We are working to foster the importance of children's developmental needs and strengths.

2

Cognitive Development

Ages 0-1

- ✗ Babies actions depend fully on stimuli from their environment
- ✗ They respond well to positive sensory (brightly colored lights/pictures, music, soft touches, etc.)
- ✗ Memory doesn't register for too long

Ages 4-5

- ✗ Young children begin creating their own pictures, most abstract but some resembling real-life objects or people
- ✗ They start learning to count and learn to order things through symbolic play.
- ✗ Respond well to stories, asks more questions, and make-believe

Ages 2-3

- ✗ Toddlers start learning simple object use, such as spoons or balls
- ✗ They begin responding to simple directions (i.e. come here, sit down, etc.)
- ✗ They start being able to name colors, objects, and people

Importance

- ✗ Children need to develop their cognitive functions in order to learn how to think critically and understand new information.
- ✗ It's important to observe how a child learns best cognitively in order to better support the development of new skills and problem solving abilities.

Socio-Emotional Development

Ages 0-1

- ✗ Responds easily to sudden stimuli (easily feared, delighted, excited etc.)
- ✗ Has difficulty understanding most social scenarios
- ✗ Responds well to music and simple stories

Ages 4-5

- ✗ Cooperates with other children well and begins learning teamwork.
- ✗ Enjoys learning new things and active activities.
- ✗ Begin recognize between real and make-believe and can make up more intricate stories.

Ages 2-3

- ✗ Toddlers begin understanding the concept of "mine," "his," and "hers"
- ✗ Can begin follow directions with 2-3 steps (i.e. pick up your toys, wash your hands, and sit back down)
- ✗ Begin feeling empathy for others

Importance

- ✗ Teaches self-awareness and encourages the recognition of their emotions as well as learning empathy.
- ✗ Allows them to learn how to make responsible decisions and general right or wrong knowledge.

Motor Development

Ages 0-1

- ✗ Babies typically don't understand their limbs are not part of their body and see them as other toys
- ✗ Most objects go straight into their mouths out of curiosity
- ✗ Enjoys soft things and bright colors

Ages 4-5

- ✗ Preschoolers can start doing simple actions such as running, jumping, skipping, etc.
- ✗ Can start drawing abstract pictures and begin writing through copying shapes
- ✗ Starts running or jumping around obstacles

Ages 2-3

- ✗ Toddlers start running and jumping with more stability
- ✗ Begins to explore with their hands (opening books, stacking blocks, etc.)
- ✗ Can start catching and throwing objects

Importance

- ✗ Focusing on motor development is important because it encourages them to gain strength and confidence in movement
- ✗ Learning motor development is a good foundation of understanding how children learn, as they learn step by step and stumble until they walk right.



Preparing your content:

6

- ✘ Choose a subject you already have knowledge on!
 - As long as it's child appropriate and you have passion on the subject, kids will be interested.
- ✘ Focus on a certain age group
 - 0-1 year olds learn differently than 4-5 year olds
- ✘ Keep it simple and entertaining
 - Children are fun-loving and playful, don't worry about making it intricate or complicated.



Important Notes to Consider:

7

- ✘ Make sure your content is enjoyable and educational, most things you teach will be new and interesting to most kids!
 - This project aims to provide enriching and good content for kids, they will appreciate the littlest things!
- ✘ Have fun! Kids aren't complicated, then love bright colors and smiles. If you are enjoying it, they will too :)



8

A collection of hand-drawn space-themed illustrations including a yellow rocket, a blue planet with rings, and several yellow stars.

Thank you!

If you have any questions, please contact me at [santos@clarku.edu!](mailto:santos@clarku.edu)

Once again, please send your content in to me by the end of the semester!



Appendix B: Interview Questions

- Do you have any experience or interest working with young children?
- Why were you interested in participating in the Online Repository project?
- What was your experience going through the training and learning of developmental concepts for children?
 - Would you say you gained some more insight on how to teach young children?
- What was your process like choosing your topic for the video and then creating it?
 - Why did you choose this topic?
 - How easy was it for you to apply the developmental concepts to your content?
 - What do you think the kids will gain from it?
- Do you think this project will be significant for children? (Short term or long term)
- What do you think about the fact that many teachers go into the field without having been trained in knowledge of child development?
- Do you have any advice you'd give to another person who was learning about child development and trying to teach young children?
- Do you have any other comments or questions about the project?