

SUNY New Paltz

How Social Exclusion Impacts the Cognitive Development of Students
with Intellectual and Developmental Disabilities

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Abstract

Society has been constructed and developed in a way that excludes and ostracizes people with disabilities. Examples exist all around us, from but are particularly rampant within schools, a place where students should be supported no matter who you are. These instances of exclusion can impact a student with disabilities in a myriad of ways, especially given how frequent instances of exclusion are within the school. Their cognitive development becomes stymied as the brain becomes preoccupied, and the student's mental well-being becomes incredibly hindered. Given how common exclusion of those with disabilities happens within the school systems of America, conversations must be started, and people need to start learning how heavily their behaviors and traditions can impact a person. Effects of exclusion are often felt for a person's entire life, making this an imperative issue to bring more awareness to, and increase understanding toward.

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Students with intellectual and developmental disabilities (IDD) nearly always find themselves facing some sort of exclusion in the American education system. Most of the learning and growth for students in school arguably arise from social experiences. Through socializing, students learn how to work diverse groups of people, what kind of characteristics of people you collaborate the best with, and how to learn from people from disparate perspectives, to just name a few. So, what happens the design of the school system makes it practically impossible to achieve the social opportunities every person needs?

Everyone who has merely interacted with a teenager can speak of how ruthless they tend to be. As their brains develop, they strive for conformity. They want to look and discover people just like them because it makes them feel comfortable through a time where they are rather fragile. Because of this, students with IDD face intense ostracization in schools. Students with disabilities often are separated from the general population in schools, which makes it hard for those students to find a comfortable spot within their peers. What starts in the classroom will expand to every area of teenager life from lunch to the school bus to after school. Students with disabilities rarely ever have time in the school day to socialize with students without disabilities. The minute they walk into the school they are labelled by the administration as “different”, as a student that cannot survive without extra help. This mindset spreads to the other students, as they do not want to socialize with a student marked as “different”. In turn, impeding on the cognitive development of all students, but especially those with disabilities.

Schools should be a place of inclusion. People with varying minds should be forced to experience each other and celebrate what makes us all different. This only makes students smarter and more prepared to go into the real world. For students with IDD, this becomes even more detrimental. The school system is not utilizing these students' brains to their full

potential, leaving so much of the tank unfilled. The list of effects of exclusion on students with IDD goes on and on, especially cognitively. These students are made to feel less than, they are made to feel worthless, they are made to feel not worth getting to know by the way school systems are designed. Paradoxically, the place where learning is supposed to start is the same place holding these students back.

As educators, we have a responsibility to facilitate inclusion within our classrooms. Differentiation in our instruction is not a choice, it is an expectation. Exclusion stymies the cognitive development of students with intellectual and developmental disabilities, and teachers should be working to prevent that from happening. In this paper, I will be discussing what the effects are and describing the catastrophic nature of them, and then after that, I hope to highlight some strategies that teachers and school administrators can use to help facilitate socialization between the entire student body, regardless of whether they are able bodied. So much research has already been done, so now it is our job to put in place and create a school that invites everybody together to celebrate inclusion.

How did we get here?

To fully understand the educational environment has been developed, it is important to understand the basics of the history of individuals with disabilities, because the way humans have treated those with disabilities has not changed much since ancient times. The world has gone out of its way to separate those with disabilities far from those who do not, galvanizing the degree of exclusion we see today. Going all the way back to Ancient Greece, babies with disabilities “were often considered portents of evil or signs that their parents had displeased the gods, and infanticide was practiced against babies with congenital impairments” (Schur 1),

instead of just being seen as a child. Children who did not enter the world as completely identical to the rest of the society were deemed a punishment, a burden, and a waste of time. In Ancient China, Egypt, and Europe during the Middle Ages, people with disabilities were seen as entertainment, as those “with obvious physical or intellectual disabilities were frequently displayed as ‘monsters’ in markets for profit during the Middle Ages and later in ‘freak shows’” (Schur 1). By the nineteenth and twentieth centuries, a differing dynamic was already being created between people with and without disabilities. Those with disabilities were deemed nothing more than entertainment for those without disabilities. The invisible line was already being drawn, that was going to be hard to break at any given point.

It was only going to get worse from there. People without disabilities started to develop a savior complex, and decided it was their job to help support those with disabilities, however, they opted for a way that excluded from society even more than they already were. The late 1800s and early 1900s began the development of asylums and residential treatment centers. These asylums were developed to appear as if they were trying to help people with disabilities, but it is no secret that they “often resulted in abusive and overcrowded conditions and was fed by a desire to avoid people with disabilities and segregate them from mainstream society” (Schur 2). In fact, it was not until 1971 until “the humane treatment of people with PD and IDD became formally codified in the law, with clear standards that must be met, and which were linked to one’s constitutional rights” (Conrad), so until then, there were no standards at all for how these asylums should treat people. Not only were they doing the opposite of supporting, abusing, they were hiding people with disabilities away in these centers. A disability in the mind of society meant a nuisance or an eyesore, so society began to develop methods that would hide disabilities from the common eye, pretending they do not exist and do deserve basic human rights.

Despite these efforts to exclude people with disabilities from society, a new movement has surged into society, one that fights for equal rights. The disability rights movement has been gaining more and more traction as time goes on, and fights for general basic rights for people with IDD, but also inclusion. This movement has encouraged a revolution in how society views people with disabilities, as it ‘has led to the development of the “social model’ of disability and the idea that the obstacles faced by people with disabilities are caused largely by society, not by individual impairments” (Schur 3). It is the first time that a group of people has not identified a disability as an obstacle or hinderance, but rather something empowering. People started to realize that just because someone was born with a disability, does that mean they should have to suffer for the ease of those without disabilities. Society has created a world that makes it arduous for someone with a disability to survive, let alone thrive in. So perhaps, it is time to question what aspects of society should be changed or altered to help support those disabilities, so that they can be included in society as they should have been for a while. This movement inspired policy change through the world such as, the “1990 Americans with Disabilities Act in the United States, the 1990 Law of the People’s Republic of China on the Protection of Disabled Persons, the 1992 Disability Discrimination Act in Australia, the 1995 Disability Discrimination Act in the United Kingdom, the 1998 Employment Equity Act in South Africa, and the 1998 Equal Rights for People with Disabilities Law in Israel” (Schur 3). The goal of the movement was clear, it was to create a world that respected disabilities and traded in fear for the encouragement of inclusion. These new legislatures were just the start to the battle.

This essay will be grounded in principles originating from the disability rights movement. Although these new laws and acts changed the way people with disabilities are treated, there is still a lot more room for improvement, especially within schools. A new law can go only do so

much, it is up to the people in power of facilities in our nation to enact change, and act as leaders and role models to set new standards for how those with IDD are treated. So, while my goal in this discourse is to highlight how dangerous social exclusion can be, it is important to know how we got to this point, and what our current policies and behaviors are rooted in. We as humans have been a species for so long now that nearly everything, we do have some sort of historical significance or reason, it's the reason so many people still choose to use paper when technology has made paper almost obsolete. Even though it has been centuries since the ancient Greeks roamed the world, there policies and mindsets still unconsciously impact us today. In a way, society still views those having a child with IDD as a punishment, when, it can enlighten you immensely. We must consciously change our mindsets to change the world.

How do schools encourage exclusion?

The minute a student walks into a new school they are immediately compared to their peers in terms of ability. Educational structure has been set up as if a teacher cannot teach and reach a diverse group of students with the same lesson, leading to the creation of general education classes and special education classes. Although at first glance, this seems like integration because everyone is going to the same school, it reinforces values of separation by not actually allowing two types of students to interconnect. In most schools, students with disabilities cannot be integrated into general education classrooms unless they “demonstrated the ability to perform like students *without* disabilities—a practice called ‘mainstreaming’” (Valle and Connor 12). What mainstreaming excels at is making students with disabilities feel like they do not innately deserve to be included in classes, they are made to be othered by the education

system. Despite seeming inclusive, by allowing students with disabilities to enter general education classrooms, all it does is make the general education curriculum appear to be this exclusive club, when it should act the opposite as it functions.

The main concern with how schools is constructed is that they often make students with disabilities appear to be options for a teacher to teach, rather than something they should be doing. Valle and Connor explain a great example in their book, writing that:

“A new fourth-grade student arrives. He has a documented learning disability. His parents bring a copy of his Individual Education Plan (IEP). Teacher A reads the IEP with an eye to how well the student will fit into her classroom. Skeptical that her classroom is the least restrictive environment (LRE) in which to meet his education and behavioral needs, Teacher A carefully documents behaviors that support her belief that a more restrictive environment is warranted. She presents her documentation to special education staff, expressing concern that she is not the best qualified to teach this student” (Valle and Connor 17).

This example showcases the way teachers can, and often succeed, get out of teaching an inclusive class. Some teachers view this as a burden, and instead of continuing their professional development, schools opt to approve the request. So much of the educational experience for a student with IDD is the conceptualization of disability amongst teachers, which can change “depending upon who is looking” (Valle and Connor 17). What right does a teacher have to deny a student from their class? This not only bars the student from their instruction, but also prevents them opportunities to meet new people and learn how to work with diverse groups of students. It goes far beyond educational needs, because what is really at stake is the student with disabilities feeling unwanted, like they do not belong amongst a certain group of people. This sentiment will expand into daily life and will easily emerge outside of the classroom.

Implementation of special education classrooms can further students with disabilities from inclusion with their peers without disabilities. These special education classrooms often have a history of foundational values that do not benefit those with disabilities to the greatest degree possible. Special education utilizes standard deviation to label students with disabilities with “labels such as ‘disorder,’ ‘dysfunction,’ and ‘deficit,’” (Valle and Connor 41), which only adds to the degree of exclusion these students face. Not only do these students with disabilities have to “earn” their way into general education classrooms, but they also must fight against labels given to them by people who do not know them, people who are only trying to diagnose them. These classes are grounded in the strategy of identifying a disability, and then helping the student overcome that specific disability, saying that “[d]ifferential diagnosis is objective and useful” (Valle and Connor 41). They would rather try and identify the student by the disability they have, rather than the student as a whole. The current structure focuses on deficits. It should rather be a place that “[a]ssumes competence and rejects deficit models of disability” (Valle and Connor 41). By focusing solely on the deficits of disability, special education classrooms seek to separate students from general education classes. It a place of supplementation, rather than a place of bolstering or support.

Because of the separation of students in special education classes and students in general education classes, socialization between each other becomes nearly impossible. At lunch, students are going to want to sit with people familiar to them and will chose the faces they recognize from their classes. If a student with a disability is excluded from those classes, how can they join these lunch tables easily? This lunch table example applies to nearly every single school event from sports games, to dances, etc. Students, whether children or teenagers, are going to follow the principles that have been demonstrated to them. If they witness a student

with a disability being constantly separated from everyone else, they will unconsciously follow suit and further exclude that student more. They will begin to look at disability with a differing gaze, like it is something wrong with them; they will adopt the deficit model. General education students need to be exposed to students with disabilities if we want to promote values of diversity and inclusion. Socializing with a student with a disability is not a chore or a challenge, it is an opportunity to learn from a new perspective of life and expose yourself to different viewpoints. The problem is children are not going to innately do this on their lonesome, they need the structure of school to guide them into these opportunities. And as of right now, there are little to no opportunities for that to happen.

Understanding just what students with disabilities must face every day will help to you comprehend why the social effects are so catastrophic. In their prime time of development, students with IDD are being told there is something wrong with them, and that they need to be separated away from “regular” students. Students spend almost more time at school than they do at home, so these unconscious assumptions and degrading policies are detrimental to their social development. It is more than being excluded from the lunch table, it is an institutional issue that has been ignored for far too long.

General cognitive effects of social exclusion:

Now that we have explored the existence of social exclusion in schools and determined that it is rampant and everywhere, it is time to consider what effects all of this is happening on students. Although this focus of my research has been grounded in students with disabilities, I first wish to discuss a study that focused on the effects of exclusion, but without any consideration of disability. This is still relevant to the scope and goal of my research since people

with disabilities are going to experience the same effects of exclusion that a person without disabilities. The major difference is that the world is constructed in a way that subjects people with IDD to social exclusion far more frequently and harshly in comparison to someone without a disability.

Roy Baumeister conducted three different experiments that strived to figure out if exclusion can lead to poor cognitive thought. The three experiments done had to manipulate social exclusion onto its subjects. To achieve this, the experimenters gave the participants “a personality inventory and then provided with false feedback” (Baumeister), which concluded that they were a social outcast. The experiments made certain participants feel as if they were going to end up alone in life, which could be considered a common fear of those who are subjected to social exclusion. After the personality inventory, the participants were asked to take a standardized test, such as the GRE, to determine their cognitive function.

While I do have to acknowledge some of the flaws in this study, as the people who were “socially excluded” may have not actually experience exclusion in their life. A large impact of exclusion is long term. It deals with the feeling of being ostracized for your entire life, anywhere you go. It hinders development just as much as it hinders performance. This study focused on the impact of performance due to short term exclusion. Despite this, the conclusions the experiments arrived at due to their study are worth looking further at.

Fearing dying alone weighs heavily on the lives of humans, more than I believe most people would realize. Baumeister’s study confirmed this sentiment and discovered that this way of thinking heavily impacts the brains of people. One of the major conclusions he arrives at is that “people exhibited significant cognitive decrements after they were told that they were likely to end up alone in life” (Baumeister). These decrements were major and distinct, they proved a

significant drop in performance of the subjects who were set up to be representatives of “exclusion”. Perhaps this is because of how highly people hold social values in their life. People unconsciously worry about if they will be alone or if they will find someone who cares about them.

The cause of these drops in scores seems to be indicative of how one carries themselves when facing social exclusion. An observed the researchers discovered was that social exclusion “caused people to attempt fewer problems as well as make more errors on those they did attempt” (Baumeister). This could mean that they did not care enough to even attempt these answers or even try and guess, or that they could just not access the necessary parts of the brain to take on these test questions. Interestingly, the people in the control groups did not do this, they at least guessed on the questions or were able to answer them. It could be considered that social exclusion makes life seem not worth it. If you cannot find worth in other people, then how can you find worth in the world? People have made the world what is it today, people have designed the world to function as it does. But if you notice constants of effects of other’s decisions, and you feel like they are not considering your best interests, then you will naturally feel excluded, and not feel like you belong.

The main takeaway of this study is how strong and impactful the burden of social exclusion has on the emotions and the wellbeing of others. In the journal article describing the study, the researchers attempted to deduce a myriad of possible reasons why exclusion carries these effects, as I have been trying to do as well. One such theory is that “social exclusion specifically impairs controlled processes, such as by monopolizing some of the resources of the self’s executive function” (Baumeister). They deduced that this lack of the self’s executive function could be related to further participation in self-regulation. This self-regulation involves

restricted yourself from feeling the emotions you want to feel and limiting your cognitive functions. This leads to the suppression of negative feelings, which is not as naturally as it seems. To maintain this way of thinking, one must utilize a lot of your own self executive function, which does not leave a lot for cognitive performance. This conclusion assumes that to mask these feelings, you are using up the energy your brain needs to perform cognitive tasks. Exclusions makes it feel like you do not have anyone to talk to about these issues, so your options are either to talk to yourself or suppress them and try to move on. A life of not having anyone available to talk to or to express your emotions to is draining on your brain, resulting in it being too occupied to develop cognitively.

One final, albeit also unproven, conclusion of the study is the direct relationship of intelligence between and social inclusion. The study had no real evidence to support this finding, nor do I find myself fully agreeing with it, but the sentiment can be very useful for exploring the effects of exclusion on development. Baumeister notes in his journal article that his findings correspond with “the view that intelligence evolved as a means to support and facilitate social relations rather than to compensate for the absence of their advantages” (Baumeister) but lack any data to support that statement. However, this statement could help explain why social interaction and inclusion is so imperative in a child’s development.

When Baumeister relates the evolution of intelligence to social interaction, I think he touches on the power that social interaction carries. Socialization brings on new opportunities, it allows for the exposure of diverse perspectives and ideas, it allows others to challenge you in ways that are difficult to replicate otherwise, and it tests your ability to manage and placate conflict, just to name a couple. So, when the idea that our intelligence has been evolving to accommodate these needs is brought up, I believe it could be looked at in a slightly alternate

way. Perhaps, all these years of social interaction has bolstered and built up our intelligence, maybe it was through selfless interaction that we as a species have managed to learn from each other and build ourselves. This type of intangible power is what makes socialization such a power aspect of a person's life. I am not trying to say that people with disabilities are less intelligent because of innate social exclusion, or that people with disabilities need to learn from those with disabilities in order to develop. I believe the impacts of exclusion can drastically differ depending on the person, but exclusion, whether intentional or not, can prevent a person from reaching their full potential.

If this study has done anything for me on exploring this topic, it has reassured that exclusion does affect the brains of those who experience it. This study may have not been the perfect fit for what I am studying, but it gifted me enough insight to understand the power of socialization that is at play. By diving into this study, I have not found an answer, and I may have not even gotten closer to one. But I can be certain that the answer is out there, and it simply requires more searching.

Looking deeper into ostracization:

So much of what people do in society is for the benefit of other people. As a species, we are codependent, which inspires people everywhere to pursue a future that helps or interacts with the community. For example, there are very few occupations in the world that are designed to give you something, they are all designed with other people in mind. A person's contribution to themselves is usually regarded as worthless (as blunt as that they may be), but how a person can impact a community is powerful. Because of the notion that we want to interact and collaborate

with other people as much as we can to find worth in the world, imagine the consequences that arise when society stymies you from other people.

This is ostracization. Ostracization on paper may seem like a fancy word for exclusion, but I would argue it carries a lot stronger of a connotation. It can be characterized by preventing somebody from accessing or participating in a group. A lot of what we have discussed so far is ostracization, which would explain why it carries such large impact on the developing mind, as “the experience itself can be quite unsettling, emotionally painful, and cognitively debilitating” (Lustenberger and Jagacinski 1). The feeling of ostracization represents rejects, it represents a group of people if not the entire society telling you that you cannot benefit us, we do not want you. In fact, the study of ostracization can be linked all the back to our primal stage, as “evolutionary psychology has even suggested that ostracism may have developed as an adaptive behavior among social animals—to expel burdensome members from groups” (Lustenberger and Jagacinski 3). This applies to all types of people in the world. In the workplace it can be not being invited to a meeting or not being invited out to lunch with your coworkers. If you consider disabilities, think about a place that is not very accessible. Perhaps it is your college campus with stairs everywhere and a paucity of wheelchair ramps, or the only wheelchair accessible entrance to a building being at the sides or the back. When places are constructed like this, you are rejecting the person with a disability easy access to something everyone else has access to, you are deeming their contribution not worth an entrance, not worth the ease of transport.

Since this type of exclusion has been happening for so long, people have developed this innate and powerful ability to sense when they are being ostracized. The same evolutionary psychologists that deduced the primal reason for exclusion also noted that “humans have developed specific mechanisms to recognize when they are being ostracized to prevent their

genes from being purged from the gene pool” (Lustenberger and Jagacinski 3). This is why ostracization carries such profound effects onto those who experience it. We as a species has evolved to recognize it and adjust to lessen the effects of it. Ostracization started as a strategy to literally eliminate certain people from the gene pool, or in other words, society deemed those who are excluded unwanted in the future, which is why it hurts so much and effects people so harshly. Being excluded from a group feels as if a group of people decided your voice and your ideas, your contributions, are not beneficial for society, which eventually causes people who are ostracized to be “left feeling powerless, especially after repeated or protracted episodes” (Lustenberger and Jagacinski 3). Your voice carries with you everywhere you go and every group of people you enter, if they take that away from you, they take away you. The feeling of powerlessness stems from the lack of agency exclusion causes, it usually is not your choice to not be a part of a specific group. Someone else deemed you not worthy, and that will impact anyone immensely, and the effects can be irreparable.

Ostracization clearly can negatively impacts a myriad of groups of people. You do not have to be a developing adolescent or an impressionable young adult. You can be fully comfortable with who you are and yet the effects of people deciding you are not good enough for them will begin to eat away at you. This universal nature of ostracization makes it unclear as to why so people resort to it and to why it is still universal. No matter the case, I argue that these effects of ostracization carry the heaviest weight inside the school system.

Effects of ostracization effects in schools:

One of the most glaring takeaways thus far is how draining ostracization can be on an individual. As we discussed earlier in this paper, the “experience of exclusion is debilitating and consumes cognitive resources” (Lustenberger 4). The cognitive resources it utilizes could, and should, be used somewhere else, which inhibits the highest level of function possible. Therefore, for someone who is frequently excluded in school, this is destined to lessen the quality of their learning. While this is a glaring problem, it does not necessarily address our exploration to discover the exact ways exclusion can hinder a student’s development.

School should be a place that fosters growth, development, comfort, and acceptance. As trite as it may be, making mistakes is one of the best ways to learn, but in order to be in a position to make a mistake and grow from them, you first need to be comfortable in your environment. At its core, exclusion hinders a student’s “basic needs for belonging, self-esteem, control, and meaningfulness are threatened” (Lustenberger 4). Belongingness is a core concept for safe and supported learning. When one feels like they belong, feels like they are meant to be, and feels like they are a part of a community they will perform better. Meaningfulness is also an imperative aspect of learning. Nobody wants to learn useless information or skills; they want to be able to find purpose in what they do. But as discussed earlier, they want to feel connected to their community in order to find meaning in their peers. When that is taken away from them, their academic performance will suffer. So just at its basic level, an exclusive school makes it difficult for those outside what the school deems “normal” to achieve a quality learning experience. Schools and academics everywhere praise nonconformity, they want people to stray from the pack and embrace their identity... as long as it is not too far out. In order to ensure that only the people they deem acceptable are able to make it through schools have created obstacles

and preventative measures to make it as difficult as possible, attacking the belonging and other essential elements of their student's learning experience.

A huge aspect of academic success is the possession of motivation. Considering the outside of schoolwork, in addition with studying for tests and preparing yourself mentally each day, it takes to be a successful student, having some sort of intrinsic motivation is a valuable skill to have. There is a plethora of aspects that can impact one's intrinsic motivation, but one of the most relevant is the "people's needs for relatedness" (Lustenberger 5). As I continue to say over and over, people want to feel connected to their society, they want to feel like their work is meaningful to others around them. If they cannot find their meaning, they cannot find their motivation, as there is no reason to expend extra energy into something. Furthermore, relatedness is essential for all different types of motivation. For instance, "[r]elatedness was also found to be a significant predictor of work motivation" (Lustenberger 5), which can be also considered to be motivation to do schoolwork since school is technically an adolescent's job. If this relatedness is so essential for a student's learning experience, then where do they find it? They find it in peer-to-peer connections, they find it by sitting in the same classes as their peers, they find it by joking around at the lunch table. What seems like solely a social issue, like sitting with others at lunch, can turn into an academic one, as it impacts their ability to find the motivation to challenge themselves cognitively. Ostracization already occupies an immense amount of one's mental capacity, so you would need all the motivation you can to fight it out and reclaim that real estate. People just want to feel connected to other people, it is arduous do about anything if you cannot achieve that basic need.

Anyone who has ever been in a lousy mood can testify that it can cause the smallest of tasks to seem grand and insurmountable. As students enter the school nearly every weekday, they

need to be ready and prepared to workday after day. Perhaps one of the most obvious effects of exclusion, but yet still one of the most essential concepts to understand is that ostracism can “led to lower levels of positive mood” (Lustenberger 301). This idea of mood can be linked to just general emotions and feelings, it is the scientific way of determining whether one is happy or sad. In no attempt to oversimplify, it could be state that experiencing ostracism corresponds with a lower level of happiness, it makes people sad. So how does sadness effect one’s ability to perform in a situation such as school? One way in that a negative mood can impact is that “[e]ncountering an event that lowers one’s level of positive mood could have the effect of reducing one’s ability to experience a subsequent task as interesting and enjoyable” (Lustenberger 301), or in other words, when you are in a negative mood, everything around you will feel negative as well. In the case of a school, if you are being ostracized or excluded in any matter whether it be socially or being taken out of classes or denied from taking a class, you will not find inspiration to continue to do anything. It evokes feelings of not wanting to be where you are and not feeling belonging. This will hinder development as it prevents a student from fully immersing themselves into school. When designing curriculum, you must consider how it will make the other students feel, as an exclusive activity that “reduce[s] feelings of positive mood could ultimately inhibit the experience of intrinsic motivation” (Lustenberger 301). Most teachers enter their classroom and begin lesson planning with the best of intent in mind, but they need to consider how it will make the student feels. If they want to get the most out of the lesson, they must consider how to be as inclusive as possible.

If you are in a school environment, I believe it is essential to understand the main takeaways of this section: belonging, motivation, and mood. While these three things may seem like small aspects of what makes a student success (as we have all observed that one student who

seemingly never puts in effort or is motivated, but yet succeeds beyond beliefs), together, they are essential for the developing mind. You cannot learn in a place that makes you uncomfortable or feel unwanted, you need to feel like a member of a community. You cannot learn in a place that hinders your ability to feel inspiration or galvanization, you need to innately want to succeed and grow, your effort is a huge part of the development process. You cannot learn in a place that makes you feel negatively, you need to positively take on the challenges that development brings to you with the buttressing of the school for support. When students are separated physically or feel separated by manmade obstacles, we are preventing them from achieving those three basic needs of the student that allow them to pursue a quality education and allow them to comfortably develop their mind.

Contextualizing these findings into the field of disability studies:

So far, we have explored generalized effects of exclusion on people as an entirety, which I could see as being a flaw in my argument. My goal has been trying to see how exclusion the developing minds in people with disabilities, but have not necessarily done that yet, even five thousand words later. What I have come to conclusion with, which will continue to change my research strategies, is that perhaps I have been exploring this in an ableist approach. I assumed that people with IDD will experience exclusion differently than those without disability, I assumed the effects would be extremely disparate. But what I now realize is that is the wrong avenue to take overall. People with IDD will still experience the effects of exclusion as those without disabilities, but the main difference is the quantity of their exposures to these situations, not the quality. What all my research has shown me is that prolonged exposure to exclusion can

negatively impact the brain. In fact, studies have shown “that as the shock of being ostracized wears off, people begin to cope and recover from the experience” (Lustenberger 287), so it is completely possible to repair the damages that exclusion has caused. But people with IDD lack the privilege of time to recover from the damages. Society has been designed in a way that exposes them to exclusion and ostracism constantly every single day, which aggregates the effects and makes the long-term effects onto the cognitive development harsher and less forgiving.

Once again, there is no specific research done that can corroborate my exact goal, however, a plethora of research has been done studying the frequency of exclusion adults with IDD experience once they are done with school, which I believe we can extrapolate to explore our interests. Family is something that most people can count on, whether it be genetic family or people you consider family. How would you feel if you lacked a family you could rely on to support you through times? People with an intellectual disability were asked how often they see their family, and the findings discovered “25% reported meeting their family once a year or less. Frequency of contact declined with increasing age and was also less for those with a severe to profound intellectual disability” (Amado 362). As the statistics show, a lot of the times people with disabilities are excluded from their own family, and as time goes on the harsher the ostracism can get. Now of course, we do not know all the determining factors as to why this is happening, but the numbers are striking enough to discern a pattern. For people without disabilities family is something they know that can fall back on and will always be there for them, but if you have a disability, that is not always the case. Going off that, family acts as a resource where people can ask for help, work things out, or just ask for a listening ear. However, “[t]he majority of adults with an ID had someone to confide in; however, three

quarters reported that their confidant was a key worker/support person” (Amado 362). Paid support persons are replacing the role that family and friends should be playing, which can help mollify the effects, but it is hard to ignore the fact that the person you are confiding in is being paid to do so. These two factors can contribute to the feeling of exclusion and ostracism and are the just the beginning of ways people with disabilities often find themselves excluded in the outside world.

It is nearly impossible to not feel the effects of ostracism. It is often done right in front of one’s face and is not hidden well at all. Because of this, “[f]ifty percent of those self-reporting stated that they sometimes felt lonely, and one in three who reported experiencing loneliness found it difficult to make friends” (Amado 362). This statistic proves that the effects of exclusion are real and are felt harshly by the individual. It is important to keep in mind that this statistic only says that fifty percent feel lonely, but so many more experience exclusion. The reason for this could possibly be a few things. For instance, research has found that “[o]ver three quarters of respondents reported that they never wrote, texted, emailed, or used social media tools such as Facebook to contact their family or friends” (Amado 362), and in the world of technology that we live in today, having access to these things are essential for feeling connected in the world. So much of life happens on the internet these days, and if you are not on it, you can often feel left out or out of the loop on current events and things going on. Another cause could be that “[o]lder age, more severe levels of ID, and living in residential centers often meant having fewer members in one’s social network” (Amado 362), meaning that their social circle usually consists of other people in these residential centers, and staff members. Living in these centers can restrict a person from connecting with the outside world, making it an arduous task to diversify your social acquaintances. It is a difficult task to achieve belongingness in a world in which you

are currently living separate of. People with IDD live their lives being stymied from interconnected with people without disabilities, which contributes to making something as open and vast that is our planet, feel restricting and exclusive.

Loneliness is just one of the many feelings experienced by people who face exclusion, and the construction of society can force people with IDD into long fights with loneliness more often than those without a disability. This feeling can be created by the paucity of someone who you can fall back, someone who you know has the best intentions for you in life, and commonly “among people with IDD...” it has been “reported that it is often related to the absence of an intimate partner, or ‘girlfriend’ or ‘boyfriend’” (Amado 363). Furthermore, “[c]ompared to the general community, loneliness is more widespread among both children and adults with IDD” (Amado 363), proving that is a lot harder for people with disabilities to find people to satisfy the hole that is loneliness. But in schools, it makes sense why students with disabilities may experience a higher frequency of loneliness than those enrolled the general education curriculum. Students with IDD are constantly being pulled out of classes, ostracized by their peers, and being segregated into special education classrooms. It makes it difficult to cultivate any type of strong friendship when you are prevented from having the time to do so. Research has discovered that “people with IDD have few friends and mostly they name other disability service users, staff, and family members as their friends”, which correlates with the people who students with IDD are exposed to in school. These students are usually only able to develop relationships with their peers who also have disabilities, as well their assigned teachers and supporting staff. This pool of other students is insanely small, and when it comes to making strong relationships, it is essential to have as big of a pool as possible, in order to expose yourself to most diverse and ongoing listen of people you can find who is your best match. Students with disabilities do not have as

easy of an access to a diverse group of people, as compared to their peers without disabilities, which further leads to the feeling of loneliness.

The school tries to act as a place of safety and comfort, but for individuals with disabilities, it does not always appear to be the case. Separate of special education and general education is not the answer when it comes to designing a fulfilling education experience for students with IDD. When it comes to people with IDD who live in group homes, it has been discovered that those “who live in smaller community settings have more participation than people in larger more segregated settings” (Amado 363). Obviously, students are not usually living in schools, but I think the concept can be comfortably extrapolated to the public school. The key here is that people with IDD report more positive experiences when they are being segregated, when they are allowed to form more close-knit groups and build relationships. The “smaller community settings”, could relate to separate special education classes being more efficient with a smaller class size, but I would argue it is more indicative of allowing people to thrive in smaller groups and create more personal connections. People with IDD participate in their community more often when they are presented with “opportunities to make choices, for autonomy, and for resident involvement in policy making” (Amado 363). Therefore, it is important to ask the students what they want. Most students with IDD never asked to be pulled out of a class or restricted from taking another. These are standards set by people without disabilities, and what they expect students with disabilities to be able to do. This type of thinking is so ever clouded in over focusing on the disability, without allowing any consideration to the ability. Although these classes designed for students with disabilities try and allow the time for each student to grow and hone necessary skills, “they still experience major gaps in social inclusion, relationships, and belonging” (Amado 363). Students need to feel bolstered and

supported, and allowed to freely experience new relationships, rather than be limited and trapped into experiences someone deems to be appropriate for them. Maybe a student with IDD feels more comfortable surrounded by others who have a disability and staff whose job it is to support them, but you will never know unless you ask and have a conversation with the student about what works best for them.

A lot of the ways people with IDD react to moments of exclusion and ostracism need a lot further research, and there is a myriad of opportunity to further explore. The claims I am making in this section are mere guesses derived from evidence and research. I have no way of knowing which style of education best suits and bolsters students with disability, but I can theorize based off what research has told us. In order to make a complete claim and statement, I would need to know the “[f]requency, choice, and intensity measures” in order “to study what happens when students leave school and after those social networks that have been provided by the school environment are lost” (Amado 366). I have a lot of ideas on what styles of teaching would be best, but there is no way to truly know without studying the aftereffects.

Also, it is essential to differentiate the types of people out there. It is hard to study this topic solely because of the plethora of avenues there are to take, as “complex interactions between personal and environmental factors, including social and cultural factors, that affect relationships, inclusion, and community belonging” (Amado 369), making it hard to take each one into effect. The feelings of loneliness caused from ostracization is subjective, everyone feels it differently. Some people enjoy having a close-knit circle of people in their lives, while others prefer to have options and a diverse pallet their disposal. It is essential to take these brash conclusions with a grain of salt, and rather than rely too heavily on the literature and statistics take the time and ask someone with a disability in your life what they prefer, what environment

they thrive in, what you can do to help facilitate their needs more efficiently. Research, while extremely helpful for discovering insight about these topics, can only do so much. It is necessary for someone who is striving to create an environment with a foundation in disability studies to consider the voice that is missing that makes disability studies important: the person with the disability.

Before I move on from this quite lengthened discussion, I could not continue without acknowledging our everchanging environment. As we adapt to this hyper-technological world that we inhabit today, inclusion looks extremely different than it has even five years ago. A major question I still have, that I believe would further understanding greatly, is whether or not technological socialization can replace physical? If an adolescent has an active online social life through social media, gaming, etc., do they still feel the effects of being ostracized at school, or is technology an escape from the exclusive environment of the real world? There is still so much to be studied regarding this topic, and this section has brushed the surface. If the world is changing, our discourse must do so as well. Perhaps, technology usage in schools can revolutionize the way inclusion plays out, or it could further the problem and continue making others feel separated from each other. There is no way to truly figure this out or discover new ways to help mollify the effects of exclusion unless the research continues, and we continue asking these probing questions. However, after all of this theorizing I want to be sure I hold myself to the same standards as I said in the paragraph before and include voices of people with disabilities.

Real life accounts on what exclusion feelings like for people with IDD:

Although we could utilize research and scientific findings to deduce what the effects of exclusion can be, and how they make those who experience them feel, the most important voice and opinion are the people who have experienced. This is why fighting for disability rights is so imperative; their voices are out there and waiting to be heard, but a platform is needed for their voices to become amplified. These real-life accounts may not directly help us reach our goal of this paper, as nobody can tell you what exclusion is doing to their brain or how it is affecting their lives as they progress through the stages of development. But what it can do is help deduce how it is making adolescents with IDD feel deep down in their hearts, and how it affects their day-to-day. You can only get this insight by listening to their voices and taking time to analyze what is said.

In Amanda J. Rich's book, *Standing Together and Finding a Voice Apart: Advocating for Intellectual Disability Rights*, she features the voices of people with IDD explaining why advocating for disability rights. In these quotes, there are many allusions to school experiences and anecdotes of when they have felt excluded or maltreated. For instance, one person said "I was in an out-of-district placement my first two years of high school, and I felt that it was really more like a day care than a school. It had very low expectations of us. They bragged about their vocational program, but their vocational program consisted of ...having us wash dishes and [their] saving the money on a kitchen staff" (Rich 75). In the quote, we learn about the study participant's experience relating to being a segregated school, and the underlying meaning it meant to them. In these segregated classes the participant describes how they were being treated differently than a student without a disability would have been treated. Like many segregated schools and classrooms, they are designed to bolster the needs of the student with a disability, but, in reality, all it does is other them. The teachers and administrators expected all their

students to enter minimum wage jobs, ignoring the fact that perhaps they would want to further their education out of high school, or consider learning a trade. They were utilized as assets to companies, as even cheaper labor than they were already paying. When, if ever, have you heard of a general education class having their students do vocational work washing dishes? But, when the students have disabilities, suddenly this is “real life experience”. Perhaps there is a lot of benefits to have the students do this, but this student describes a negative sentiment for the experience. They found it demoralizing and felt their self-worth plummet. For the participant in the student, this did not feel like life preparation, it felt like the school insinuating they would end up in dish pits making minimum wage. This type of reinforcement of ability stereotypes is debilitating on the well-being of any student who experiences them, which will then abate their confidence and self-worth.

A lot of the time, the implementation of exclusion in schools is for the ease of differentiate, but also a lot of the time, to limit the amount of bullying or teasing that may happen in an inclusive classroom. However, so often this causes people in general education classes to not be exposed to students with disabilities, and hence, view them as starkly different beings rather than just other students. So even though schools have gone through such lengths to try and limit the bullying that happens in their schools, it is still rampant as one participant describes: “I remember being called the R-word and things like that when I was younger. And the reason I went from self-advocacy to peer advocacy is because self-advocacy is just one of us thinking, and peer advocacy can be somewhere from two people to a whole group, depending on who needs the help. And I’m actually helping another person with disabilities.... The other [reason] is [to] communicate what they want and what they need in their own way [be]cause not everybody can speak as well as I speak” (Rich 76). This participant describes their motivation to advocate

for the disability rights movement because of the bullying they experience being a person with a disability. This participant has noticed the way that schools have been set up to limit voices, and not help develop the ability in students with disabilities to advocate for themselves. By separating the school by general education and special education, you are insinuating that one voice does not deserve a place in another's environment. This is why I believe this participant is so fixated on the idea of peer advocacy; they want to use their voice to amplify the ideas of the people who lack a voice as a result of the constructions of society. This person sees it as an opportunity as a chance to help others not experience the teasing they had to endure. The effects of feeling like you do not have a voice have to mimic the ones above, it must once again be demoralizing and diminish any sense of self-worth, let alone identity. If you are raised in an environment that does value disparate voices and diverse input, then you will grow up thinking your voice does not matter. And if you are a student with a nonverbal disability, how is the school benefiting you by separating you from the rest of the students? The participant describes the importance of being able to speak for those who cannot, and if you separate classes by those who can speak and those who cannot physically speak, how can those who are nonverbal get their voice heard? Humans can support humans, no matter the differences that have limited the interaction in the past. But separation will only stymie this progress, it will on block society from progressing to that point. When it comes to development, this engrains the notion that your voice does not matter, it does not have worth in this world, meanwhile the fact of the matter is that it is the complete opposite.

The way the environment treats a person is bound to rub on the person. Maltreatment from everything around you will make you feel like that is all you deserve; all that society has in store for you. Society, for whatever reason, has developed these social norms that people are

bound to at the start of birth and have no choice but to follow. If you break these social norms, you are ostracized, you are secluded. This concept of social norms inspired one participant of the study to say “I would also say don’t adjust yourselves to the norms around you. Adjust the norms around you to yourself” (Rich 79). In other words, this person recommends being true to who you are, and not feeling like you are required to adapt to everything around you. The reason this is so paramount is simply because of how ableist society has been developed. A myriad of social norms has been created that can make someone with a disability have to dodge obstacles just to get by. This person recommends not making yourself do this and live a life that is comfortable for you. They continue their thought, saying that “[in] the autism community [is] that there [have] been such low standards of ethics and values for everybody, from service providers to doctors to nonprofit organizations, for so long that ... anyone with any common sense would be horrified by...” (Rich 79). If everything in society treats you poorly and without dignification, then you should not have to change yourself to meet their needs. The world is vast and rich enough that they should be able to meet anyone’s needs. The reason I think this is an important quotation to analyze is because the place where all students are supposed to be able to free and themselves, school, is a place that is requiring students with disabilities to either conform or be segregated into separate classrooms. The participant later explains that this makes “It is very hard to think to hold on to values” (79) to live in an environment in which people are “shocked with electric shock generators because they are not making eye contact” (Rich 79). The school place is training students with disabilities to be incapable of holding onto their own values, instead of being able to build upon and develop them. This can cause lasting effects to any students by making them feel like their values are not important to society. Our values are at the core of what makes us who we are, without them, we will lack an identity, we will lack any sort of

differentiation. And if a society is making it arduous to feel confident in these values, something ought to change.

Now that we have heard from the voices of those who have experienced exclusion to such a degree that inspired them to pursue a path in activism, the implications of exclusion are clear. Without knowing the smallest bit of biology or about brain function, the effects of exclusion are clear. When people lack a sense of belonging, it is no secret to them, which lead to years of obstacles in the development of their cognition. But now that we do in fact know that experiences of intense exclusion over a prolonged period of time carries an array of consequences to the person, it is time to explore exactly why this happens, and explore how the vulnerable brain reacts to these moments.

How does social exclusion alter the brain?

The brain is constantly taking in its environment, decrypting the information, and then modifying itself to suit its needs. Most interestingly, brains of different people are rarely ever identical, depending on the person's genetics and their environment, two people could have completely disparate brains. A prime example of this phenomenon is when you look at heat maps done of two brains and see where the most activity is occurring in each one. The heat maps indicate key differences in development between two brains. Most of this development happens throughout a person's primary school years and through their adolescence, making it a very vulnerable time to be living. Everything a person does, everything a person witnesses, and everything a person experiences mixes together and creates the brain they have. When it comes

to exclusion, experiencing it can radically alter your brain and weaken key elements of it that are necessary for the development.

Before I step foot into the unceasing discourse of the malleability of the human brain, I believe it's important to set the foundation of exactly how I will explore the impact of exclusion onto the brain, and in addition what strategies I will be using, since there are many I could choose from. For this analysis, I will be adopting and implementing what is called "Social Brain Hypothesis". This term was coined in the realm of psychology called cognitive neuroscience. The purpose of its development was to "capture a sense that much of the brain's activity is really geared to steering a way through the complex social world in which we live" (Decety 3). In other words, it attempted to describe the way the brain altered itself as it traversed the impactful world and adapted to the requirements of its surroundings. This hypothesis was first developed to help differentiate the brains of humans from the ones of our familial neighboring primates. The findings this hypothesis originally concluded was that there existed "core evidence... that there is a relationship between social group size in primates" (Decety 3). This evidence was the culmination of the disparate variables humans are exposed to throughout their lives to the ones that primates experience. Simply put, primates' experiences wildly differ from situations that humans do, and therefore, certain parts of their brains are more developed in comparison, as well as vice versa. As years and years progress, clearly "it becomes harder to draw absolute distinctions between the innate capacities of young humans and those of their ape relations" (Decety 58), which shows just how far our brains have adapted from the original models, and how significant this process is. The social brain hypothesis is such a powerful phenomenon that it helped change an entire species of primates to evolve into the humans we all know today. So

now that we know the ways this hypothesis affects primates, how does it apply to humans, let alone the way we experience exclusion?

The basis of the social brain hypothesis is that the brain is malleable, which the most important part of it for this discussion. It is the recognition that “social cognition play[s] an important role in human social behavior” (Evolution 23). The way that people decode the nonverbal messages of their social experiences, and the way that embed that into themselves is prevalent throughout all of adolescents. In order to apply my discourse to this hypothesis, I will be looking at the way that experiences of ostracism and moments of social exclusion assumes control of the brain, and the way it takes advantage of its malleability to alter it. As we have discussed time and time again, the brain is extremely malleable throughout the crux years of adolescence. It’s the time where the brain is figuring out its purpose, how other people perceive it, and how to best support itself socially. Exclusion though, is so powerful, that reoccurring exposures to it can change the brain forever.

Exclusion is the feeling of being rejected socially. It is the feeling of having a group of people declare you not being worthy of social attention. Naturally, this can carry some significant effects. Researchers have discovered that exclusion “actually causes changes in a person's brain function and can lead to poor decision-making and a diminished learning ability” (University of Georgia), after studying the brain utilizing the “magnetoencephalography (MEG) technique” (University of Georgia). This technique allows researchers to “imaging technique that measures the magnetic fields produced by electrical activity in the brain” (University of Georgia), which can help them determine exactly where in the brain social exclusion effects in people. The study discovered that its participants that were placed in the social exclusion group portrayed “clear differences in activity in the brain's occipital, parietal and prefrontal cortex

region” (University of Georgia). These parts of the brain are essential because “[t]he parietal cortex is involved in attention, while the prefrontal cortex helps support so-called "executive functioning" processes such as working memory and other behaviors that may support self control” (University of Georgia), meaning that if experiences you are having are impact the development of these areas, you may be prone a lack of focus, poor decision making, and an inhibited ability to manage your emotions.

Although the brain is portrayed quite often as one the most malleable parts of yourself, once it is developed, it is nearly impossible to continue to alter it. Therefore, it is so important to understand that “social exclusion actually affects the brain's neural circuitry” (University of Georgia). When people experience moments of ostracism, their brain adapts and alters its wiring to best fit the situation in the moment. If these experiences occur repetitively, the brain will realize this and alter itself permanently to support the person in these moments. One moment of exclusion that occurs repetitively is in gym class, when someone is not chosen for a team. This study serves to help understand why those who are regularly not selected for athletic teams respond “with inappropriate behavior or even violence” (University of Georgia). These instances are showcase the brain acting with a negatively impacted parietal and prefrontal cortex. A person’s self-control is hindered because of ostracism, concluding with the person reacting inappropriately. These instances can often be reoccurring and insert themselves permanently into the developing adolescent who unfortunately has to endure the catastrophic effects of ostracism regularly.

Exclusion impacts the brain’s development beyond that as well, some which may not even seem like obvious direct correlations. For instance, one correlation was that ostracism has been found to be the culprit of causing the brain to face “reduced storage capacity, [or] inability

to filtering out task-irrelevant information” (Xu). The first part, reduce storage capacity, refers to the brain’s ability to retain and locate memories. It limits the maximum number of memories, whether it be short term or long term, that the brain can hold. The latter half, the inability to filter out irrelevant information, refers to a person’s ability to discern what is useful and what is not. For the most part, the brain unconsciously separates and categorizes information by what it believes to be useful, and for the most part it does that part of its job well. Therefore, you forget a lot of irrelevant memories in your life. In individuals who experience great deals of exclusion, their brain is no longer able to efficiently complete this task, causing either the brain to remember and maintain a large amount of pointless information, or forgetting a lot of useful information.

Interestingly, both aspects relate back to the memory functions of the brain. The data discovered in the research by Xu “showed that the WM [Working Memory] deficits caused by exclusion were due to reduced storage capacity and impaired attentional filtering ability” (Xu). This part of the memory manages its executive functions, it allows us to consciously work with information in an organized manner. When individuals experience exclusion, this part of their memory is severely hindered. This negatively altered working memory leads to excluded individuals to “demonstrate the generality of inhibition control failure” (Xu), correlating and making more sense of the discoveries I discussed a couple paragraphs above. The working memory part of the brain is linked to so many different parts of the brain and can result in a myriad of changes to the develop adolescent. As we see here, this injured working memory can lead to a lack of self-control in an individual. No matter how you look at it, exclusion finds its way to impact the way people act as a whole. It targets the brain harshly as it “exerts more complex influences on executive functions” (Xu). These executive functions are the aspects that

help us control our decisions and actions. And if exclusion can impact that ability, it will find its way to manifest itself into the development of people.

Furthermore, social exclusion has managed to seep into even more parts and aspects of a person's brain functions. More studies have discovered links to exclusion "implicating ventral ACC [Anterior cingulate cortex], PCC [posterior cingulate cortex], and insula" (Bolling, "Differential"). The ACC is located at an interesting part of the brain as it has "connections to both the 'emotional' limbic system and the 'cognitive' prefrontal cortex" (Stevens). Because of this, the ACC "has an important role in integration of neuronal circuitry for affect regulation" (Stevens), or simply put, "the ability to control and manage uncomfortable emotions" (Stevens). Because of this, exclusion can make it difficult for an individual to consequentially manage the negative emotions that arise with moments of ostracism. It limits the brain's ability to mollify and soothe an individual as they witness themselves not being included, causing unpleasant and inappropriate reactions. For someone who is consistently excluded, this part of the brain is not being developed much at all. Each instance harms it more than the next, and prolonged exposure can make it difficult for an individual to develop a strong ability to manage these emotions. At a young age, the brain is most vulnerable, making attacks to a part of the brain as sensitive as the ACC detrimental to a child's development.

One of the saddest parts of exclusion is that those who have to encounter it, do so for extended periods of times, from youth, throughout development, and then into adulthood. The ACC is extremely vulnerable to these prolonged exposures, studies have found. Research has discovered that there is a positive relationship between activation of the ACC and frequency of social exclusion. One study found "that activation in vACC region increased with age" (Bolling, "Development"), and this is caused "that heightened activation in this region is part of the neural

profile of adolescent sensitivity to social exclusion” (Bolling, “Development”). Naturally, as the rate of activation within the ACC increase because of exclusion, so do the effects. It is detrimental to the person because “[n]eural activation in vACC has been associated with experiencing sadness” (Bolling, “Development”), which has also “altered connectivity among depressed patients” (Bolling, “Development”). This idea here explains why social exclusion has such a prolific effect on the mental well-being of an individual. The feelings associated with ostracization can cause someone to experience depression, and other mental illnesses. So, the main point that this study discovered was that the negative effects do indeed carry into adulthood, altering the brain's makeup through the overactivation of the ACC. The scariest part of this is simply how powerful the role of childhood experiences can be in the development of a person's brain. Something as prevalent such as the way schools are constructed, designed, and implemented, can seriously hinder the development of certain students' brains who are deemed “not important” enough to ensure inclusivity. Ostracization is more than just a situation or a temporary experience, but rather something that in a lot of cases may be as catastrophic as trauma.

The posterior cingulate cortex (PCC) is equally as important to development as its anterior neighbor is, as it has been discovered to play a significant role in cognition. One function of the PCC is that it “direct role in regulating the focus of attention... controlling the balance between internally and externally focused thought” (Leech and Sharp). This relates back to the discussion earlier in which we discovered how exclusion can cause its subjects to lack an ability to concentrate or focus. The PCC also becomes most active when “individuals retrieve autobiographical memories or plan for the future” (Leech and Sharp), which is scary for those who face ostracism. Earlier studies that we have discussed depicted exclusion as a fear that

one will end up alone, a fear that these methods of exclusion will be eternal and last forever. Therefore, it can be induced that the PCC loses activity when these fears occur, weakening this specific part of the brain. So, if the feeling of exclusion makes you scared that you would end up alone, the PCC will not become active during the “planning for the future stage”, which then leads to poorer concentration. It is also important to make note that the PCC is a part of the limbic system, which is the part of the brain that “specialized for emotional processing” (Leech and Sharp), making hinderances to this part of detrimental to the individual. We have discovered throughout this research that exclusion causes a lot of emotional harm to the individual, and this could easily be a reason why. Ostracism seems to attack important aspects of the limbic system, which then cause inappropriate emotional reactions. Also, in the realm of this research, the PCC also plays an influence on the behaviors of individuals who have autism. Though nothing specifically dealing with exclusion, abnormalities in the PCC have been found to “correlate with the severity of patients’ autistic symptoms” (Leech and Sharp) and a “a failure to show task dependent deactivation in the PCC has been shown to correlate with social function” (Leech and Sharp). While I cannot ignore the insensitive wording of these quotes, it is essential to understand that autism is an IDD, and if this part of the brain is linked to aspects that characterize the disability, and is impacted by exclusion, makes this part of the brain an important place to look at.

The last part of the brain, but certainly not the least, that was covered in the list earlier is the insula, another part of the limbic system. Studying the insula is essential to understanding how exclusion impacts the brain because it is “thought to play a crucial role in emotional experience and subjective feelings” (Uddin), an area which we have discovered is extremely vulnerable to the ostracized. In the insula, “emotionally arousing stimuli such as disgusting,

scaring, happy, sad, or sexual pictures” (Uddin) have been found to be activated, making it the hub for emotional thinking. Furthermore, the insula plays a huge role in an individual’s ability to empathize and understand the feelings of others around them. Research has discovered that “the right anterior insula was associated with the affective-perceptual form of empathy, while the left insula was associated with both the affective-perceptual and cognitive-evaluative forms of empathy” (Uddin), corroborating that empathy is essential part of the insula’s function. All these emotional aspects could lead to someone who faces exclusion regularly to have trouble relating to others and understanding different types of thinking. So much social learning and development happens through experience and action. Therefore, it makes complete sense that someone who may be excluded from these opportunities for social learning would face developmental obstacles because of it.

It is also important to note that the insula participates in coalition with the other two previous parts of the brain to help with attentive functioning. The insula works to “integrate external sensory information with internal emotional and bodily state signals to coordinate brain network dynamics” (Uddin), meaning that it works diligently to communicate with other parts of the brain to alert them of information that they can utilize. So many other aspects of the brain rely on the insula, as it “causally influences other large-scale brain networks including the default mode network” (Uddin). So, when the insula is weakened to do prolonged exposure to ostracization, it is no longer able to efficiently communicate with other parts of the brain to make sure they have the inputs they require. Because of this, attention become difficult because the parts of the brain that are connected to the insula are receiving the encoded messages fast enough. For students who experience exclusion consistently in schools, this could make it an arduous task to pay attention in class or be able to participate for long periods of time. In a

school, the student's attention span is constantly being tested and utilized, making the insula an essential part of the learning experience, which hence, makes it quite alarming that school are set up to harm the exact part of the brain they so often assess.

The brain also utilizes a myriad of chemicals in order to communicate within its different parts. It is important for the person's well-being that exposure to these brain chemicals is balanced, there cannot be too much one chemical or too little, and they must be able to access the areas of the brain they need to in order to cause impact. So many mental health disorders are caused because of an imbalance of chemicals, such as bipolar disorder, making this an essential area to investigate. When it comes to social exclusion, one of the chemicals that is most heavily impacted is known as oxytocin. This chemical has been discovered to "to affect emotional reactions, social perception and behavior in a vast number of situations and paradigms in different ways" (Petereit), including "enhanced trust and cooperative behavior" (Petereit). Oxytocin can also carry negative effects however, such as "gloating and envy" (Petereit), as well as to "diminish cooperative behavior under certain circumstances" (Petereit), making it essential for an individual to maintain a healthy balance of this neurochemical. This could lead someone who is being consistently excluded to struggle with team activities in the future, as well as being able to socialize with anyone. This chemical corroborates the idea of why someone who is consistently excluded may not trust someone trying to include them. A surplus of oxytocin in the brain serves as a reminder to the individual what has happened in the past and supports the individual to continue working solitarily.

An essential role of brain chemicals is communicating between different areas of the brain, and when that function is altered or prohibited, drastic effects can be observed. For instance, a reducing quantity of oxytocin was found to "reduce[s] the connectivity between

occipital cortex and amygdala” (Petereit) when an individual faces social exclusion. This is harmful because “input from the amygdala can rapidly influence the visual cortex activity and might thus influence how much emotional salience is applied to visual stimuli” (Petereit), making it difficult for an individual to encode messages in messages and develop strong feelings toward an image. Simply put, it makes an individual stoic, and reduces their emotions.

Therefore, exclusion impacts the brain by manipulating oxytocin pathways in order to cause “diminished influence of the emotional processing of visual social stimuli” (Petereit), or “a reduced influence of emotional information from the amygdala on the emotional processing of incoming visual stimuli” (Petereit). This impacts a person who continuously and consistently experiences exclusion by making it more difficult for them to ingest and process social cues. An inability to process social cues can lead to an individual to deal with further ostracization, as they do not know to handle themselves throughout the unspoken rules of socialization. Because of this, development is drastically hindered as it makes it difficult for someone to communicate within society. If this starts at a young age, a person may not learn the necessary social rules that governs our world, making it more difficult for them to catch up throughout their development, excluded them even more.

One aspect that has made our species so successful is our ability to expect and predict what will happen. As we progress through our lives, we learn how to predict different events, assume how others will act in a situation, and plan for certain things to happen. This is how chess players learn to guess what move their opponents will do, this is how stores know where to put certain items they are trying to sell, and how you know what to do when a car is swerving toward you, and you need to get out of the way. Conditioning your brain to foresee and detect certain events happening is a surprisingly easy task, as most of it happens subconsciously. Therefore,

when someone experiences exclusion time after time and it becomes a part of their daily routine, their brains teach themselves how to predict it.

When the brain is repeatedly exposed to painful stimuli, it's bound to learn how to cope and anticipate its arrival. Studies have discovered that "social exclusion selectively elevates anticipatory attentional levels towards potential exclusion outcomes as a function of cognitive reappraisal tendencies" (Kiat), making it so people who often experience these acts of ostracization will begin to expect them much more frequently. Researchers believe that this increase in anticipatory behavior is caused by the stimulation of "the parahippocampal gyrus [which] lends additional support to the proposed psychological processes" (Kiat). This ability to predict when exclusion will happen may seem like a good tool, as you would learn when to expect to be forced into these stimuli and perhaps know when to avoid them, but like many things in life, if you have too much of it, it begins to harm you. Previous research has discovered "links between social hypervigilance and negative health outcomes" (Kiat), which means that you are more aware you are of your surroundings and the more you try and predict what others are going to do in relation to yourself, your well-being will decrease. This happens because the "activation in this region [the parahippocampal gyrus] to be associated with stronger inflammatory responses to other real world social stressor" (Kiat), making this a rather sensitive area of the brain to be consistently stimulating and activating. It makes sense hypothetically as well, since if you were walking around and expecting to be excluded everywhere you went, your mental health would probably take a toll on you. Either way, nobody should ever have to exist in life expecting to be excluded or ostracized, simply because you experienced it a great deal in the past. We all carry expectations with us, and they mean a lot more than people realize. People of color may walk by a police officer with fear because they expect to be assaulted just because

there exists a pattern of people of the law abusing people of color, making them confident it will eventually happen to them. Or on a lighter note, people may walk into a clothing store expecting a sale because the store is known for having frequent sales on their merchandise. The school should be a place where students expect to have enriching experiences, and not ones where they expect to be ostracized and othered by their peers. As I keep saying, school is such an imperative time for development, and we ought to be more conscious of what stimuli and experiences we are subjecting our students to every single day.

Overall, as I hopefully have made abundantly clear at this point, the brain is one of the more, if not the most, malleable aspects of our human body. Every single experience, every single stimulus, and every single moment that enters our brain affects it in some way. This thinking is the foundation of the “working out the brain” idiom. Just like when you work out your muscles, every time you use your brain you are building its neural connections and making the active parts stronger. But just like when you hurt yourself exercising your muscles, you can hurt your brain through this method as well. Negative experiences, as well as hyperstimulation of certain parts of your brain can lead to catastrophic and lifelong harm, especially during development when the brain is at its most fragile state. While some challenge for the brain is good, too much of it or too many adverse experiences can lead to the stymieing of development and making certain areas too strong, or even weaker. If you are in a field with children or adolescents, this is an essential concept to understand. Even if you feel like that some small things may go unnoticed by developing adolescents, they are subconsciously picking up on nearly everything. Their brains are constantly adapting and changing to what the world is giving them, and therefore we need to be sure we are developing and creating situations that best suit and support their developing needs. Furthermore, although I mainly covered the impact on the

brain, since those were the sources financially accessible to be, it is important to note that exclusion can also impact the body of the person. Exclusion has been discovered to cause problems such “as impaired immune system functioning, poor blood pressure regulation, reduced sleep efficiency levels, and even higher morbidity and mortality” (Kiat). While the brain is fragile, so is the body, and exclusion has been so expertly crafted that it knows exactly how to do the most harm the body and minds of the people that it has been exposed to, making it a volatile and destructive. With that sidebar aside, the main issue at hand is the wellbeing of the next generation’s brains and bodies, their main tool they utilize as they continue their adventure throughout our world. We must be cognizant of that and create places that incubate the developing brains and bodies of adolescents, rather than harm it.

Exploring mental health deeper:

One of the newest and most widely talked about things in the world right is mental health. There has been a recent upsurge of advocacy for mental health issues, and mental health as a whole has recently been getting taken more seriously by those in the medical professions. A huge reason for the increased advocacy is because people are starting to learn the impact that one’s surrounding environment can have on them, such as a person being strapped down to a mundane nine-to-five desk job getting depression, or a great deal of childhood trauma causing a person to develop a mental disorder later on in life, such as schizophrenia or bipolar disorder, just to name a couple. But most interestingly to me, I believe that people who experience continuous moments of exclusion face a mixture of the two aspects I just named, especially when it comes to people with disability. Someone who lives with a disability must constantly inhabit a

world that is created to present obstacles for them, similar to the person working a boring desk job. Everywhere the person goes they must deal with blueprints and construction plans that gave no thought to how someone with a disability will have to utilize the area. Or in the case of schools, a student with a disability must go through their daily school lives being taken away from their peers and succumbed to work the school deems “appropriate for them”. On the other side, as we have observed a lot so far, exclusion can be extremely traumatic for the developing mind. Growing up causes an incredible number of stressors and negative stimuli to be activated in the brain, specifically during the development. This attack on the brain can subconsciously create these traumatic experiences for an individual whether they realize it or not, hence, leading to the higher risk of a mental illness manifesting itself within their brain. No matter how you look at it or what angle you choose to observe how exclusion affects mental health, I believe that almost all of us can come to an agreement that it is just a matter of how these mental illnesses formulate within the brains of the individual that needs to be further researched and explored.

A lot of the same concepts that we explored in the previous section regarding how exclusion affects the brain is also what causes mental illnesses to arise. For example, the overstimulation of the parahippocampal gyrus, which causes an influx of anticipation for exclusion in those who experience exclusion, has been discovered to lead to mental illnesses. This increase in anticipation can be detrimental to the individual as we have already discovered, such as “a wide range of negative social outcomes including social anxiety disorders” (Kiat), as well as “chronic social isolation and the undermining of intimate relationships” (Kiat). For this purpose, I am most interested in the social anxiety disorders, as we have already covered the latter two in depth earlier. The anxiety disorder in this case would be caused by repeated

experiences, or patterns, of exclusion. These “negative behavioral patterns have the potential to give rise to pernicious self-fulfilling feedback loops” (Kiat), or in other words, the individual develops a routine in which they expect to be excluded socially in most, if not all, social interactions. This naturally leads to the individual to develop a deep ridden anxiety toward socializing, and therefore develops a social anxiety disorder. These social anxiety disorders do not just naturally go away over time, if at all. Once developed, they are often arduous to overcome or defeat, making it often become a lifelong battle against the disorders. Therefore, exclusion causes a lifetime of effects, especially if it gets so consistent and gruesome that it causes a person to develop an anxiety disorder.

In addition to creating a mass amount of anxiety toward social events, exclusion can also make an individual feel unhappy and dissatisfied with their, causing them to suffer from depression. Research has discovered that “[d]epression may be precipitated by a large variety of events, both social and nonsocial, but being excluded is certainly among them” (Leary 225-226), making exclusion even more important to eradicate. People who are excluded often “engage in self-harm and suicidal ideation, and to experience higher rates of depressive symptoms” (Mulvey), which makes it a very dangerous mental illness to be dealing with. This depression can arise in an individual because they may be “internalizing symptoms” (Mulvey). It is essential for humans to be able to vocalize issues going on in their lives, and in order to do this you need strong social relationships with others. As we saw in the agency section of this paper, so many people with IDD do not have this close-knit social circle, in which they can feel comfortable to share their opinions. In addition, if the person is consistently being excluded at school, they may feel uncomfortable going to school provided resources, such as guidance counselors or other emotional support staff. If an individual is excluded at school, they also may

not be able to establish this social circle that is necessary for support. These social relationships are so important, as “[h]aving a social support network reduces anxiety, jealousy, loneliness, and depression, even when the individual does not take advantage of any tangible support and even when the support is irrelevant to the original cause of dysphoria” (Leary 226), so even if a person must suffer through exclusion, the mere existence of something to fall back on is extremely beneficial. So, while a lot of the effects of exclusion are harmful on a person’s well-being, which could easily impact a person developing depression, that is not the sole aspect of it in relation to exclusion. A huge factor is also the ability to rely on someone else for once. We as a species need to be collaborative, whether you identify as an introvert or an extrovert. If you internalize every emotion, you will blow up like a balloon with negativity, forcing your brain to malfunction and become incapable of processing emotions. Even if you do not utilize those external resources, just the fact they exist and if you do need them, they will be there, will work wonders and help a person’s mental health incredibly. Depression is a serious mental illness, and I think anyone working in a school needs to be aware of the ways its structures can impact a student’s ability to live a mentally health life outside of school.

When people are emotionally or mentally unwell, their decision making, and behaviors do not always act in their best interests. Sometimes, people are extremely self-damaging, self-harming, and perform risky acts when they are mentally ill. Studies have once again found that “social exclusion does seem to increase a variety of self-defeating behaviors” (Twenge 613), or moments in which they make decisions that do not best support their physical or mental well-being. This happens because “whose social ties have been threatened appear to become more willing to do things that are likely to produce bad outcomes for them” (Twenge 613), which is the result of the fear of being alone. Having tight social circles is so important to us humans as a

species, that we often act with heavy amounts of toxicity in order to main certain relationships. Also, these self-defeating behaviors can be seen as self-demoralizing acts, such as putting yourself down or not valuing yourself as high as you should. Ultimately, these behaviors accomplish one thing, which is that they often “expose the self to further risks and problems” (Twenge 614). This fact represents how essential it is for people to main healthy and strong social relationships, and why some people yearn them so much. It also makes sense of why exclusion can cause such deteriorating effects onto a person. It is because people so desperately want to interact, learn, and simply coexist with other so badly, that when it does not happen, they often do not the best way to act or respond to those situations. These self-damaging behaviors can often impact a person’s future and come back to bite them further down the line. If the point of schools is to help students achieve the future goals and succeed as a citizen further down the line, we need to create an environment that does not put them down and does not make a student self-deprecate. We want students to be able to see all the potential inside them, and then make choices, that are supported by the schools and faculty that they meet along their way, to help them achieve their goals.

Exclusion is a very impactful experience for anyone, let alone developing adolescents. Adolescence is the time where most mental illness protrude into a person’s life, and the time they are most commonly developed. A lot of mental illnesses are also caused by trauma, meaning that they are results or consequences of certain events in a person’s life. Exclusion is one of those possible traumas that cause an adolescent to develop a mental illness. The more you experience exclusion, especially on a consistent basis, the more likely you must be to develop these mental illnesses. Whether it be depression or anxiety, or any illness that exists, exclusion very well could be at the heart of it, even if there is no research to support it, as there is not too much out

there on this matter. But what the most important takeaway is that exclusion is felt strong in the brains of our students, and when they experience it, whether it be head-on or passively, it will register in their brain and their brain will act accordingly. As we as a society learn more and more about these mental illnesses, and progress in our understanding of how they affect people, the more we should be scared that a possible place of origin of these demoralizing illnesses is the school itself. While this could be for a myriad of reasons, we cannot ignore that exclusion is one of them. We should be encouraging inspiration and unlocking our students' potential, but when we take students out of classes, separate them from their peers, and relegate them to a classroom in the poorly occupied hallway of the school, we are reinforcing these ideals that these students do not matter. The students are registering that, and the fact that it is coming from their school of all places is insanely harmful to their well-being. These mental illnesses are just some of the diagnosable effects of exclusion, as some that we have learned are not aspects of a specific mental illness, but either way, they show just how harmful ostracization can be on a developing mind, and we ought to discover and develop ways that stymie exclusion from happening and make all of our students feel belonging.

The flip side of exclusion:

The interesting part about exclusion is that its effects are not all negative, and I believe it would be a mistake for me to present any other way. Rejection is a painful experience for anyone, especially socially as we have an innate need to socialize with each other within this world. Because of this, being able to cope with the pain that constant exclusion brings is a very useful tool to have in your arsenal as you as you progress through life. Obviously, in a perfect

world, there would be no exclusion. A utopia would have people coexisting in harmony, but unfortunately people will experience some sort of ostracization in their lifetime. Being able to deal with that is an important skill to learn and master, so while rejection is painful and detrimental to a person's well-being, exposure to it throughout development can raise positive effects. Also, just as a forewarning, I recognize that this is taking me off the trail of reaching my goal, but I reckon it is important to cover when discussing exclusion in its entirety, as I plan on doing.

As we discussed throughout the essay, social exclusion can often make us more susceptible and sensitive to external stimuli. We have learned how consistent exposures to exclusion can impact and change our brain structure, we learned how it makes people value certain social connections over others, and we learned how facing exclusion makes its victims feel. It creates a sensitivity that people who rarely experience exclusion often do not possess, or even understand for that matter. For instance, there was a study done in 2008 that sought to discover if someone who experiences exclusions can figure out a fake smile, or in other words, artificial socializations. The study accomplished its goal, and in fact did discover that "socially rejected individuals have enhanced ability to determine whether the "happy" facial expression of a target individual is genuine" (Bernstein). One reason this conclusion was appeared is theorized to be because "motivation to reaffiliate increases rejected individuals' sensitivity to other social cues indicating belongingness opportunities" (Bernstein), as these individuals strive to discover genuine social opportunities, not ones that are forced by unnatural societal environments (i.e., school). It could also be caused by people's innate desire to interact with people of similar natures, meaning that someone who experiences exclusion may search for someone who else who also has, "which leads them toward interaction partners with whom they might affiliate"

(Bernstein). By being able to decode real or fake smiles, the person can then discern the intentions of the person in their social interaction. This study demonstrates that people who are often ostracized are more sensitive to the messages that others are sending out.

The reason I bring this research up is not to argue that facing exclusion gives an individual some sort of superpower, or that a good amount of exclusion is good. As we have discovered throughout this synthesis of research, that is certainly not the case. Prolonged exposure to ostracization is detrimental to the mental health of the individual, it stymies their cognitive development in a plethora of ways, and ultimately, it just bestows a lengthy list of negative feelings and emotions onto the individual. It is something that nobody should have to constantly experience, and although it can help a person strive for the real and genuine aspects of life, I believe the negatives outweigh that. But what I do find value in, is discovering what positives exclusion can bring, so we can figure out ways to help our students develop these skills when we help to abate the consistency of exclusion, or ultimately eradicate it. Being able to deduce whether a smile is fake is a very useful skill in my mind. It can help an individual escape danger or figure out if someone is taking advantage of them. But exclusion does not necessarily have to be the vehicle in which adolescents are exposed to it. I do not have the answers to this problem this minute, but I carry within me strong beliefs that this ways of altering the perspective of this research can be beneficial to humanity.

The COVID-19 Pandemic & Exclusion

Nothing in the past couple of centuries has caused a massive wave of social exclusion as much as the coronavirus pandemic we are currently living through. As our technology has

improved, we have learned that we no longer necessarily need to physically be around other people as much, or as often. In the United States from March 2020 through that year's summer, social interaction fell to an all-time low. School transitioned to online environments, stores and other social arenas closed down, and nonessential jobs were either cut or also moved to online environments, just to name a few. People began only to socialize with close family and friends, and meeting or talking to someone you do not know was viewed as risky and dangerous. Since we are still in the heart of the pandemic, a paucity of research exists to examine exactly how this type of forced exclusion is affecting people. However, there exists a bountiful amount of news coverage, government actions, and public service announcements that can help us try to utilize our insight and see ways the pandemic has affected not only us, but people with disabilities. Parents of students with disabilities have had to come up with new ways to help their children learn since online education can often stymie accessibility and make the socialization aspect of school even harder.

Overall, the pandemic has affected nearly all people in the world, causing an increase in loneliness everywhere. The *New York Times* ran a story this past year, covering the story of a business student in France who has particularly been affected by this newly forced exclusion. Because of the grim future that the coronavirus has given off, the student "says that loneliness and despair seep in at night" (Kwai and Peltier), and this loneliness has caused "so many suicidal thoughts" (Kwai and Peltier). Because of the fears the pandemic has caused people to deal with, "mental health professionals are growing increasingly alarmed about the deteriorating mental state of young people, who they say have been among the most badly affected by a world with a foreshortened sense of the future" (Kwai and Peltier), correlating with earlier in this paper when I found research that supported exclusion causing people to fear their future. Furthermore, this

forced exclusion has caused young people to worry that “that they are losing precious time in their prime years” (Kwai and Peltier), causing UNICEF to run a survey of “8,000 young people found that more than a quarter had experienced anxiety and 15 percent depression” (Kwai and Peltier). Another important statistic to note is that a survey found that the pandemic has caused “young people manifesting more severe symptoms of anxiety, depression, eating disorders and addictions” (Kwai and Peltier). This correlates to the deteriorating effects that exclusion has on mental health we discussed earlier.

The pandemic has also altered the way teenagers around the world transitioned into adulthood. Dr. Robert Vermeiren, who works as a professor in child psychiatry noted that being forced to stay home has stopped the part of development “when young people move from belonging to their family to belonging to their peers” (Kwai and Peltier). Usually around the peak of adolescence, teenagers begin to spend a lot more time with friends, trying to separate themselves from their families. Not being able to do this, Dr. Vermeiren noted, has made them “feel empty, lonely, and that loneliness brings them into despair” (Kwai and Peltier), corroborated the fact that the developing adolescent needs social interaction in order to achieve overall happiness. Research has also discovered that children in lower-income households have been more likely to experience symptoms of depression, which could be explained by how “those in poorer households are more likely to lack enough space and internet access to help with schoolwork and communication with their friends” (Kwai and Peltier). Freedom and the ability to explore relationships with others and find out what exists beyond the household is essential for adolescent development and being trapped in parents’ houses. For young people at the beginning stages of their adolescence this means that “[t]hey were developing their own freedom and space, and during lockdown they lost what they had just started to experience” (Kwai and Peltier).

Mental health professionals have been encouraging their clients who are struggling with exclusion “to go outside as much possible — even if it involves breaking restrictions” (Kwai and Peltier).

Looking at the pandemic as a general case study to see how exclusion affects the well-being of people is an extremely beneficial strategy, even though it may not help us look at the effects it has on specifically people with disabilities. I found that nearly every single point the article made about how young people are experiencing pandemic-caused exclusion correlate and corroborate the research that I have found for this paper, from mental health to the feeling of worry that they will end up alone. This shows that these findings are more than just statistics or observations for an academic paper, or something that only exists in the realm of experiment and academic. These are real life effects that can be observed in our society. The pandemic has only highlighted these things and made them more obvious for easy observation. The beginning of the coronavirus has marked the first time that the general population without disabilities have experienced widespread social withdrawal, something that for the most part, they are not used to. People with disabilities must fight through these experiences every day since the beginning of their life, so if people without disabilities are experiencing these prodigious effects only after a year, imagine what the effects would be like for someone who has been experiencing these effects for a decade, if not longer. Exclusion is a serious issue, as documented by the effects the pandemic has had on young people thus far, so it is about time that we consider it as the legitimate and dangerous experience it is.

Despite that long aside about how the pandemic has affected people with non-disabilities, it has also greatly impacted the quality of education and the resources students with disabilities have been receiving, or not receiving in schools. *The New York Times* has also published a piece

in which they described how schools have been leaving their students with disabilities behind, excluding them from school, which is an experience that everybody has a right to have. One mother in the article stated that her son who is deaf, blind, and nonverbal, has “her son got ‘nothing’ from his classes and also stopped receiving many of his legally mandated special education services, or received them in a format that did not work” (Morris). A lot of the parents of children with disabilities in New York City have also stated that “they have already seen drastic damages from their children’s loss of their usual therapies, services or learning accommodations” (Morris). The state’s comptroller’s office has also stated that “the shift to remote learning has ‘exacerbated pre-existing achievement gaps’ for children with disabilities” (Morris). Another parent’s child, who is nonverbal, went from “having in-person speech therapy sessions three times a week and occupational therapy twice a week” (Morris) to merely “a phone call once a week from both therapists” (Morris). An attorney with a focus in disability rights said that if a family wishes to seek compensation for their child’s lack of education during the pandemic that that most likely will not happen, saying “I think it’s inevitable that there are children who will be left behind and will not get the services to which they are entitled” (Morris). When schools went virtual, everyone tried frantically to figure out how to best support their students using new and foreign technology. Inevitably, that will not be able to reach all students, but that does not excuse the students with disabilities who were left behind. Being excluded by your peers is one thing but being excluded by your teachers and supporting staff is another. Not only is the education of these students with disabilities at stake, and will take years to catch up with, but they will be facing these impacts of exclusion as well, which we have learned can be even more catastrophic than it seems.

In response to the fact that students with disabilities have been left behind by educators during the pandemic, New York State has issued a notice stating that they will be prioritizing spending for programs to assist these students. The New York State comptroller set a goal for the new 2021 school year, stating that “[r]emote learning during the pandemic disrupted the entire educational system, but the students who need special education services were especially impacted. An essential part of this year’s school reopening plans should be determining how to compensate for the learning losses students suffered and to ensure they succeed in their educational goals” (DiNapoli). He cited research about how the pandemic has affected students and discovered that “52% of general education students met or exceeded the proficiency standard compared to just 14% of students with disabilities” (DiNapoli), showcasing that students with disabilities have been severely impacted by the change due to a lack of support. He then ends off his public service announce by sharing that “State education aid will increase by \$8.4 billion over the next few years. In addition, New York was allocated over \$15 billion in federal emergency education aid under three relief packages” (DiNapoli) and that “[s]chool districts should prioritize spending state and federal aid on special education programs and related services to help address short-term setbacks and longstanding inequities for students with disabilities” (DiNapoli). This extra funding, according to the comptroller should be able to help make up for the loss of learning that students with disabilities have experienced over the past year and will create more services available to support them. This announce shows just how severely students with disabilities were impacted, and how terrible the effects of these students being left behind had on their academic state. However, nothing can change the effects that this intense level of exclusion left on the minds of these developing adolescents, and hopefully this extra funding will make up for that as well, but that would be difficult to do.

The coronavirus pandemic has changed life for everybody, with the world we inhabit today being vastly different than the one we lived in at the beginning of March 2020. However, we cannot sit back and ignore how social isolation is affecting our developing adolescents. Through the entire population we can see with a wide lens how isolating ourselves effects our mental being. With mental issues at an all-time high and suicidal ideation increasing, it is impossible to ignore one of the main causes being loneliness. We are witnessing in live action that ostracization and exclusion, no matter the context or form, is detrimental to the well-being of our people, and the effects it can have on a person's development is already able to be observed despite the pandemic only going on for a year and a half. This pandemic has proved that exclusion is a real issue and made it clear that we are innately social creatures that thrive on being able to communicate with others. The other view the pandemic has displayed is that students with disabilities are vulnerable when it comes to how the schools support them. So many schools view themselves as having a general education population of students and a *special education* group of students, when in reality, there should be no real reason to separate the two. Because of this separation, we see students with disabilities being left behind when schools find it too hard to figure out ways to change the way they function, which is causing a huge barrier in these students' academic progression. Students with disabilities are treated as less in comparison to students without, and the pandemic has shined a light on that. Inclusion is so valuable, especially in a world where social inclusion is almost impossible due to social distancing. Everybody deserves to be included in their own education, and that should be asking too much. School instruction should be the one place where inclusivity is guaranteed and not even question, but we have witnessed that that is not always the case, which hopefully acts as a wakeup call to inspire change.

Moving Forward: Making Change to Create Inclusive School

These facts, theories, and concepts that we have discussed thus far are truly only of use to us if we use them to inspire change. In the scope of this paper, I will not be diving as far deep into what changes could be made to make schools more inclusive as I would like to. The realm of this paper at its foundation is just the effects exclusion as, in an attempt to bring light to our need to facilitate more inclusion in our schools. I believe there exists a myriad of research out there in the world that still awaits us, that we can utilize to do just this, theorize specific ways to make inclusivity in our schools more at universal. I could easily go on and on about this topic, but for the needs of this paper, I will keep it to just a few key points.

Even if your school does not subscribe to inclusive principles, does not mean that you cannot implement them into your class. When you are formulating your lesson plans, you have to ensure that you are always considering how inclusion will look in that lesson, and while that may take a little extra work on your part, it will be beneficial for not only your students with disabilities, but every single of your students in that class. A great mantra to live by is “[r]emember that it is much better to over-plan than to under-plan” (Valle and Connor 164). What this implies is that the teacher should be considering how they can adjust a lesson to fit the needs of each of their students, how they can adapt something they want it to do to make it completely accessible for everyone, and I think the biggest thing... defying the norms established by a century of exclusive teaching. Some things we do as teachers is simply because we have seen them done before, it worked then, so why would it not work now? This is where you have to be the change. If a class lesson plan is completely inclusive, then go for it! But if

there is even an ounce of you holding back, then look to adapt it. Ultimately, “teachers have autonomy in making informed decisions about what, when, and how to teach students differently” (Valle and Connor 148), so you ought to use that power. For instance, take the common teacher behavior of passing out worksheets. Who said these worksheets all have to be identical or the same? Differentiation could be a great way to start shaking off the old habits of teachers before and start initiating skills of teachers in the future. It is important to note that “[d]ifferentiation does not need to occur all of the time during a class” (Valle and Connor 148), but depending on the activity, you can change “the rate, volume or complexity of what is being asked of the student” (Valle and Connor 149). By creating differentiating the tasks for the students, you acknowledging no student is exactly the same, and shows that you are monitoring their learning and taking time to individually bolster them. So not only will this help support your students academically, but it will also make them feel more noticed, feel a strong sense of belonging, and feel supported by their teacher, which is something that is not felt enough by students everywhere.

Another technique that you can use to foster inclusion in your classroom is simply by talking about disability. Perhaps you are teaching a class that in which no student has an IEP. That does not mean that those students do not deserve the value of important conversations revolving around disability and inclusion. By including conversations about diversity, that causes a “*systematic* infusion of disability issues across the curriculum” (Valle and Connor 229). This happens because too often, if a person does not have a specific relationship with someone with a disability, they might not understand it all, or even think about it ever. By having these conversations, you are encouraging your students to critically think about a topic that may seem new to them, and hence, makes disability seem like a less foreign concept to them. Discussion

and conversation are great starting points to establish inclusion because it is important “to acknowledge just how much our students reflect what we project as teachers” (Valle and Connor 230), so by showing to our students that disability advocacy is important in your classroom, they will understand that it should be important in their lives as well. Disability should not be something that people jump around about, people should know how to discuss it, especially if we wish to advocate for a more inclusive future. The goal of these discussions should be to get your students to “think about disability as simply natural variation among people rather than a pathology or tragedy” (Valle and Connor 233), and if we do that, our dreams of total inclusion seem plausible. This falls under the umbrella of conversations of diversity, as disability adds to “the tapestry of diversity that defines an inclusive learning community” (Valle and Connor 233). Discussing disability is similar to teaching a book about the Holocaust to a class with no Jewish Student or teaching racial injustice to a class of white students. By using discussion as the entry to inclusion in your classroom, you are making larger strides than if you did nothing, simply because your school does not support it. You can start to be the change, even if you do not think you can, and quite often, it is very easy to do since all it takes is a small amount of creative thinking and inspiration.

Despite that the fact that the sole teacher can make an incredible impact in designing an inclusive classroom, creating an inclusive school relies heavily on the principals and leaders of that particular building and district. Even though inclusivity should not be as shocking of an idea as it might to seem to a lot of people, it unfortunately is, making it so that “[l]eaders have an important role in facilitating high-quality learning experiences for students with disabilities” (DeMatthews). A strong leader can not only make changes to policies and standards of their school, but they can influence the ways that people who look up to them think and behave.

Research has shown that “[i]n effective inclusive schools, principals, general and special educators and paraprofessionals work together to meet the unique needs of students with disabilities” (DeMatthews), which corroborates the power of strong leadership in a school. An effective leader would be able to share their thinking and ideas with the rest of the staff and teach them why it is important for them to also subscribe to. Fighting for inclusion is not a battle that can be fought on its own, it’s not just for the teachers and it is not just for the principle. But there does need to be someone in the school that can advocate for the policies to be put in place, which in most cases, falls largely onto the principal. One way in which principals can accomplish this task is by make sure they “engage teachers in conversations that challenge status quo thinking about disability, question deficit-oriented perspectives and emphasize the need for students with disabilities to achieve within the same content standards as all students” (DeMatthews).

Preexisting biases regarding disabilities should be deconstructed and then rebuilt, and some teachers may need to be retaught how to discuss and support a student with disabilities in some cases. A lot of teachers view teaching students with disability as a struggle and an obstacle they must face, when in reality it should be viewed as such. It should rather be viewed as teaching an individual, another student, and if a teacher is already trained in differentiation and utilizes those skills even when they have a class without any students with disabilities, then it will be a much more beneficial experience. People tend to follow leaders a lot more than they realize; it is largely an unconscious behavior. But, when there is a strong leader in an environment, change arises and influences the everybody within an entire school, which is a tremendous power to yield.

If you are a leader inspired to make inclusive changes to your school, consider these last words of advice. First, remember that “[s]chools must be empowered to manage their own

change” (McLeskey and Waldron 66). Creating an inclusive school is more than just making a couple of policy changes and gifting yourself the inclusive sticker. It requires maintenance, it requires consistent trainings and development opportunities, and it requires somebody to continue to check in on the progress being made. The moment you stop tending to it, people will start to think it is not important anymore, so as a leader, you must continue to show that consistency on your end as well. Secondly, “[t]o develop a successful inclusive school requires major changes in the entire school” (McLeskey and Waldron 66). While you may want to *test drive* some of your ideas and theories about inclusion in a couple of classes, you should not stop here. You should continue to develop your policies and teachings until it is as universal as giving homework in classes. There should not exist “inclusive teachers” and “non-exclusive teachers”, because that means there still exists a problem of exclusion in your school. Thirdly, and I believe I have touched on these a bit previously so I will combine them, but “[s]ubstantive change should transform current school practices and is not simply an “add-on” (McLeskey and Waldron 66) and “[c]hange should seek to make differences ordinary in the general education classroom” (McLeskey and Waldron 67). Adapting your school to make it more inclusive means opting to move on without the safety net of old, flawed, but for whatever reason, trusted traditions. One of these, as discussed before, is throwing away the notion of the universal type of student. Nobody learns the same, nobody has the same pre-existing skill set, so why should they be treated in class as if they do? Consider what traditions are holding your school back from inclusivity and alter with them until they support all students. Fourthly, “[c]hange must be tailored to each school. There is no model” (McLeskey and Waldron 69). By choosing to move forward with inclusivity in your school, you are opting to leave behind lazy planning. This process will take a lot of work, and will require a lot of creativity, testing, brainstorming, and

some failures and setbacks until you have a good understanding of what works in your school. Consider your student body, consider the needs of your districts, and then make changes on what you believe can best support them. As you go through with this process, remember that “[c]hange has a ripple effect. It is systemic” (McLeskey and Waldron 68). You will not reap benefits the day after, it will take time and generations until you see your school having a mastery of these concepts. But do not give up, because it will eventually help all your students receive the education they deserve in the long run.

Unfortunately, it may take decades until we see inclusivity arise in schools everywhere. So, in the meantime, I feel it would be beneficial to leave a few tips for ways to best support a child with a disability who experiences exclusions (in the context of the Covid-19, but I believe the advice I selected still applies here). If you are a parent who is worried about your child, you work in a school in which you believe this might be a problem, consider trying to “[c]heck-in with your child’s school, teachers and therapists” (“Advice”). This might seem counter-intuitive, since they might be the reason the child is experiencing exclusion, but they might realize they are even being exclusive, or they might not realize the profound negative effects it carries. Sitting by and watching something happen will never evoke the change you wish to see in the future. Also, consider seeking assistance, utilizing things such as “[d]isability or condition-specific organizations and support groups [which] can provide helpful information, social support and reduce feelings of stigma” (“Advice”). These types of support groups can steer you in the right direction and can also help the child meet connections they may be able to benefit from. They may also have better specific situation advice. Lastly, just remember to be present for the child, whether it is your own or someone else’s. “Children with disabilities may internalize feelings that they and/or their care needs are burdensome to their parents” (“Advice”), so if you show

them that you care and that you want to ensure their well-being, making yourself approachable and empathetic is a great way to show the child that. They might just want someone to talk to, and you can be that person. When doing this, try and “[e]ncourage them to talk about their feelings” (“Advice”), since as we learned, letting pain build up inside you will cause a negative reaction in the future. If you are not able to make inclusive change all around the world, you can always just be an ally and an advocate and offer support when needed. The effects of exclusion, as we have learned, can be extremely detrimental and painful, so by being a support system you are mollifying the effects that exclusion can have. Remember, if you do not have a disability, you can utilize your privilege for the better. Amplify the voices of those who are being suppressed by the media, explore new ways to support and be an ally for others. Inclusivity may be a gigantic task to accomplish, but with more people fighting the uphill battle, we will only move faster to a more universally inclusive society.

Concluding thoughts:

My goal from doing this paper is to merely start the conversation revolving disability studies and advocacy, and to bring awareness as to why we must be having these conversations. Exclusion has been so far engrained in our society, that nobody realizes how exclusive our world has become toward individuals with disabilities. As we have now discovered and discussed thoroughly, these effects caused by ostracization impact a person more than simply making them sad or upset, they cause permanent damage to their brain and their development. It impacts the way someone may respond to emotional stimuli, how they further interact with other, and how they maintain their well-being. All of this is being caused by a lack of understanding within

society regarding disabilities. The world has such a stigma about them, people would rather ignore people with disabilities than talk to them as if they are not people too. These conversations should and need to be as commonly discussed as other topics of diversity are, such as race and sexual orientation. They should happen not only because they are the right and moral thing to do, but because exclusion is causing horrific cognitive impacts on people with disabilities, which too often begin in the school. The school should be a place where students are comfortable to exist and are exposed to a diverse group of students and thoughts. Schools should be designed to bolster learning and support growth in their students. But for students with disabilities, it is doing the opposite, it is harming these students and socially reaffirming archaic social traditions that have been engrained in our society for centuries. Even if you cannot change the functions of schools directly, consider discussing disabilities with others and work to spark further conversation. This process of creating a more inclusive world for people with disabilities will take decades, so it is best to begin this process now.

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