

Cultivating Teen Empathy by Addressing Diverse Personality Types

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Abstract

Survival of the human species has always relied on social connectedness; in an increasingly isolated world positive socialization and emotional empathy is more important than ever before. Empathy is not a single part of our human core, but rather a complex mix of physical and biological elements. Through the use of MRI's there is evidence of empathy being housed in the supramarginal gyrus, a part of the cerebral cortex (Bergland 2013). This article will discuss empathy as it relates to the developing teenage brain. To do this, we need to look at the social aspects of the teenage brain specifically interpersonal neurobiology. The theory of Interpersonal neurobiology stretches our thinking in terms of the self. This theory suggests that we are who we are in relation to one another (Caddell 2018). The impact of the current climate of education in 2020 due to the Coronavirus, and closing of schools highlights the critical need for empathy in our schools. It is my belief that by researching adolescent brain chemistry and making connections with interpersonal neurobiology, we will help cultivate teen empathy by addressing diverse personality types and incorporating this neurological research into our classroom curriculum.

The Neurological Development of Empathy

When working with high school students of fourteen to eighteen years old, it is valuable to consider their neurological development and brain chemistry. Stereotypically, it is easy to call teenagers reckless, or impulsive. The trend is to suggest that a teenage brain functions without breaks, or a frontal lobe, however this type of assumption discredits the amazing abilities of our youth (Casey, 2013). Teenagers are going through significant biological changes, but this doesn't mean they are not capable of learning or adequate reflection leading them to make sound decisions.

The human brain is a magnificent organ divided into the brainstem and the cerebellum and four main lobes, each responsible for different functions. The brain stem is at the base and responsible for regulating the bodily functions we do not need to think about; temperature, heart rate, swallowing, and breathing (Daa, 2019). The functions of the brain stem are innate, not taught, but rather basic human survival, and develop long before birth. Above the brainstem is the cerebellum, which houses our motor skills, hand-eye coordination and balance functions for our bodies (Healthline, 2019). These skills develop over time, but can also be practiced as we grow and learn. A child drawing a picture for the first time might grasp a crayon in their fist and react on paper through a series of haphazard mark making. As their motor skills develop, they will begin to control the movements into more identifiable representations of visual storytelling.

The four main lobes, occipital, parietal, frontal and temporal are above the brainstem and cerebellum. According to researchers at spinalcord.com, the occipital lobe is the seat of most of the brain's visual cortex, allowing you not only to see and process stimuli from the external world, but also to assign meaning to and remember visual perceptions (Spinalcord, 2019). As the occipital lobe develops, a child will be able to now process familiarities, for example, they can see their mother and cognitively know who she is.

Between the frontal and occipital lobes lies the parietal lobe. The main functions of the parietal lobe includes perception, object classification, understanding of letters and numbers, and visuospatial processing (Goldberg, 2001). As the parietal lobe develops, a child will be able to decipher between a picture of an apple, and an actual apple on the table in front of them. Using their developing motor skills, children will begin to not only understand the concepts of letters and numbers, but they will be able to practice representing them on paper.

The central part of the brain houses the temporal lobe. The temporal lobe functions include audio and visual processing, understanding language, facial recognition, speech and emotion (Tanka, 2001). Because of this, children understand language before they are able to verbally express and write it on their own. Emotions rapidly fluctuate through a growing child as they learn to navigate their feelings and process before being able to verbalize. For example, infants cry when they are uncomfortable. This discomfort can range from hunger to tiredness and any emotional range that they are not able to verbally identify, their developing brain just knows something is not right, triggering a response.

The frontal lobe is in the developmental processes in the teenage brain (Casey, 2013). This is where thinking, planning, problem solving, emotional and behavioral control, and decision making resides (Casey, 2013). Fifty percent of the human brain is composed of the frontal and prefrontal cortex. Knowing that the frontal lobe is in the developmental stages of teenagers, it is critical to support our students as they navigate their rapidly growing and changing brains, providing them with skills and resources to function as healthy, happy, empathetic members of society.

Through the use of functional magnetic resonance imaging, researchers were able to use a perception experiment to identify the supramarginal gyrus, a part of the cerebral cortex

responsible for empathy (Silani, 2013). Silani and her team found that showing one subject an image of maggots while putting slime on the subject's hand, the subject would be more empathetic to a second subject in the same situation. If the first subject was shown a picture of a puppy, and fur placed on their hand, the person in a pleasant situation found it harder to exhibit signs of empathy. Since the brain is malleable, and exhibiting empathy can be identified within brain chemistry, this suggests that empathy can be practiced and cultivated within a person (Bergland, 2013). Much like developing motor skills, we can educate our teenagers as they mature and help them practice empathy and healthy emotional intelligence habits.

Casey suggests that it is an overgeneralization to say that adolescents are incapable of making rational decisions, or lack empathy, because of their developing prefrontal cortex (Casey, 2013). Since the decision making process resides in the frontal lobe, impulse control can be compromised in adolescence, due to the fact that the human brain isn't fully developed until the age of around twenty for females and twenty four for males. Evidence of this behavior has been present in my classroom for instance, where students sometimes do not know why they are making impulsively driven decisions. In one of my afternoon classes, a student was impulsively writing his name on his desktop in permanent marker. When I asked him to stop, he told me he didn't even realise he was doing it. This student was slightly distracted, but without the fully developed prefrontal cortex, it was a lack of impulse control that led to this happening.

To understand the biology of the changing teenage brain, we need to look more deeply at how the brain physically functions in conjunction with the physical development. In the brain, cells are called neurons. They are reinforced with myelin sheaths (Siegle, 2014). The myelin sheath is an insulating layer made up of fatty substances that protects the nerve and allows the transmission of electrical impulses (Morrell, 1999). A healthy balanced diet and adequate

hydration can equip students with the nutrients needed to develop the myelin sheaths and maintain a healthy brain. As children grow and evolve they are obtaining new information and learning constantly. If you consider a child at birth, then at age three, an incredible amount of language has already progressed in that short time, and it will be retained. The rapid processing of new information is called the blooming process (Siegle, 2014). Eventually, the brain must shed the unused neurons, which is called the pruning process. A child who spends their first few years in an entirely Spanish speaking environment, then moves into an English speaking environment may find it challenging to maintain the Spanish language. If the language is not continually practiced, the need for Spanish speaking is pruned from their evolving brains. For adolescents, this means the pruning down of existing neurons, and the laying down of myelin sheaths connecting the remaining linked neurons (Siegle, 2014). In his research, Dr. Dan Siegle suggests that if a person wishes to learn a new language well, or a particular skill in music for example, beginning in childhood and continuing to practice through adolescence will result in a deeper understanding and residual memory of the topic. The child who moves from a Spanish speaking environment into an mainly English speaking environment will maintain the primary language into adulthood if it is continually practiced, as this will strengthen the myelin sheath and lock the skill into memory (Siegle, 2014). This does not mean a new skill cannot develop later in life, but continually working on a skill through the blooming and pruning process creates stronger myelin sheaths.

The blooming and pruning process can also cause some challenges in the changing adolescent brain. Dr. Siegle calls this a time of intense opportunity and intense vulnerability (2014). Stress on an adolescent brain can increase the cycle of frequency and intensity that the brain goes through it's pruning process. Stress can strip away optimal function of the brain at an

accelerated rate, leaving an adolescent with less than optimal brain functions, increasing their vulnerability to mental disorders (Siegle, 2014). The stress caused by the coronavirus pandemic on the teenage brain does not go unnoticed. “Teens are already developmentally prone to higher cases of psychological distress without a global pandemic, so in this situation it is possible that any psychological issues could be heightened” (Lessard, 2020). Extending empathy to our students during this pandemic is part of modeling that empathy is an important element in the human experience.

Social Engagement and Chemistry of the Adolescent Brain

Teenage brains biologically follow a different set of rules as it shifts and changes throughout puberty (Casey 2013). As educators it is valuable to consider the biological and social aspects of where our teenage students are developmentally. This awareness can help us target intervention to foster empathy. Understanding brain chemistry can help educators recognize the developmental level of their students in addition to teaching and promoting empathetic behaviors. The brain’s frontal lobe, which is responsible for decision making and reason, is not fully developed in a teenage brain so there is a perception that teens lack empathy and are egocentric (Casey and Caudle 2013).

Neuroscience has provided us with evidence that the teenage brain is still in the developmental process. The higher order thinking skills of creativity, reason and empathy are evolving with the maturing frontal cortex. I do not believe the lack of empathy in students is an intentional act; rather it is a behavior that can evolve as the brain changes. The term egocentric is not a fully accurate term to identify what teenagers are experiencing. According to dictionary.com, the definition of egocentric is having or regarding the self or the individual as the center of all things: having little or no regard for interests, beliefs, or attitudes other than

one's own; self-centered (n.d.). It is possible that what we interpret as egocentrism in teenagers is really just a manifestation of self-preservation due to social sensitivity during a time of development. Teenagers are actually empathetic, but they are experiencing heightened concerns with how their peers perceive them. Teens could benefit from working with mentors to help them understand both social constraints of our contemporary society and their neurological development.

When the adolescent brain is experiencing these changes, social engagement is also developing (VanDuijvenvoorde, 2013). Van Duijvenvoorde views the navigation of teens in a complex social environment as mentalizing. Mentalizing is the ability to infer mental states of others such as their intentions and beliefs and desires, which means thinking about the intentions of others and consequences for others (VanDuijvenvoorde, 2013). It is then possible that teenagers do not lack empathy entirely, they are just experiencing a heightened focus on peer reactions. Teenagers can sometimes struggle with accurately understanding the social cues around them and can sometimes misconstrue what may actually be happening in a situation.

This is also at a time where social sensitivity is heightened in a typical and conventional developing teenage brain, not a deviation from the norm in terms of anomalies in the brain, which may lead to different processing of social stimuli through Leah Sommerville from Harvard University describes that a shift happens in teens as they rely on the importance of peer and romantic relationships more than family (2013). At the same time there is intensifying attention necessary for the emotional processing concerning social status. Teenagers are acutely aware of their appearance, concerned with self-preservation, and how they are going to be perceived by their peers. The perception of their peers can oftentimes outweigh the judgement of their own parents or teachers. Having the right brand name of jeans or shoes is hardly as

important in life as it seems to be when you are in high school! Sommerville calls this social sensitivity (2013). Hormones during puberty also heighten the social sensitivity and have a great impact on the brain in terms of social stimuli (Casey, 2013). This heightened social awareness and sensitivity to the judgement of their peers feeds into our perception that teenagers are egocentric.

Working with teenagers on a daily basis confirms that their friendships and peer relationships are highly impactful in their lives. Discussing the importance of social life for teenagers it is unmistakable that students enjoy and seek out quality time with their peers while simultaneously sacrificing time with their families. During interviews with high school students, many have expressed to me that their friends are their family. While doing a drawing lesson with my Introduction to Art students, they were asked to choose a friend or family member to illustrate for their portrait drawing. Only a select few students decided on family members, while others eagerly found or photographed their peers. In a digital art lesson, when asking students to use their own images, most were of classmates and friends, with few family representations provided in this instance as well. Sommerville also noted in her writings that adolescents not only engage more with peers and friends, but that the intensity of these relationships shift from just play or activity partners into deeper intimate platonic and romantic relationships which can also intensify emotional reactions when peer rejections occur (Sommerville 2013).

Due to the coronavirus pandemic, teenagers are not gaining satisfaction from their social relationships with their peers. In the state of Michigan, Governor Gretchen Whitmer closed schools March 13, with the hopeful expectation that we would return after spring break. To slow the spread of the Coronavirus, social distancing became a new way of life, and on Monday, March 23 2020, our state was put under a stay at home order. On April 2, 2020 Governor

Whitmer closed schools for the remainder of the 2019-2020 school year. Leah Lessard, a post-doctoral candidate at the University of Connecticut says that teens are still facing very real social and emotional challenges and that despite widespread uncertainty surrounding the future, it is essential that we all look out for adolescents, be sympathetic to their frustrations, and make sure that they have the resources and supports in place for optimal development (Lessard, 2020).

The Decline of Empathy in America and In Our Schools

The Covid-19 pandemic has provided us with heightened examples of both empathy and lack of empathy. When the first cases were being reported in Michigan, people began to hoard items like toilet paper, hand sanitizer and bleach wipes. Bread disappeared, then flour and yeast became scarce. Store shelves continue to run bare, limiting consumers to the purchase of only two of all high demand products. Protestors stormed the state capitol armed with automatic rifles, demanding Governor Whitmer to open the state. These examples show egocentric thinking and a lack of empathy. Nevertheless, empathy was exhibited throughout the pandemic and did not go unnoticed despite the growing concerns and frustrations of the general public. Medical workers showed an immense level of empathy for their patients, bravely providing medical care during their illness. Some, helping dying patients facetime their families so they do not have to die alone. Medical and essential workers throughout the country stayed in donated campers, or in tents in their garages just to avoid contaminating their family. Neighbors worked together to ensure that the elderly living near them were being taken care of. Educators continued to push forward with innovative curriculum as they tackled a new online learning platform. We have seen the extreme of empathy on both ends during this pandemic.

Empathy Before the pandemic, empathy in Americans decreased by 75 percent since 1979 and this decrease is seeping into our high school classrooms as well (Schwartz, 2019). In

thirteen years of teaching art at the high school level, I have witnessed a steady decline in empathy. It is not just emotional empathy, but also a decline in personal accountability and responsible actions. These tendencies to look past the greater good are alarming. A task such as cleaning up work space went from a job simply done for logical reasons, to a task that now needs to be graded and assessed under a responsibility standard in the art room. There is a disconnect between individual actions and the impact it has on the function of the entire class and peers.

Let's compare this to the popular shopping cart theory circulating on social media. The theory suggests that the type of person you are can be determined by whether or not you return your shopping cart, a task you should do, but received no consequence for not doing (Ebony, 2020). The idea of doing something because you should, and not because you have to, has seemed to become a relaxed social norm. How can we help developmentally egocentric seeming teenagers value and model empathy? Based on this research, to label them as solely egocentric is not truly fair. The balancing of hormonal changes, social emotional changes and evolving brain chemistry can be reined in to help dissolve the idea that teenagers are egocentric. I believe that incorporating awareness and use of different personality types will help remedy this contemporary problem.

Our greater whole is being challenged right now. The Coronavirus, or Covid-19, has spanned our globe, bringing illness, death and economic distress to all corners of our earth (Penkar 2020). On March 13, 2020, the Governor of Michigan, Gretchen Whitmer, made the call to close down schools, which then led to a stay at home order (Haddad, 2020). School systems across the state started scrambling to create continued online learning opportunities for our students, anticipating a return to school, but when Governor Whitmer made the difficult decision

to cease all K-12 in person instruction for the remainder of the school year, this impacted our students in fundamental ways (Haddad 2020).

Dr. Daniel Penkar has discussed this topic in a recent article, suggesting that emotional intelligence is the key in confronting this crisis, and he cited work by Daniel Goleman, a psychologist who introduced the idea of emotional intelligence. Goleman is the founder of casel.org, which is currently providing social emotional learning resources during COVID-19 (Casel n.d.). “Social Emotional Learning is the process through which children and adults understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions”(Casel n.d.). His work provides parents and educators much needed resources in a normal situation, but the need is amplified during this global pandemic.

As an educator for a rural community in Hamilton, Michigan I have experienced a positive shift in the focus of emotional intelligence during the COVID-19 pandemic. Faculty have been asked to emphasize empathy and stay socially connected as we mourn the loss of many milestones with our students. This year all students miss out on school wide events, but for the class of 2020 missing prom, graduation, performances, spring athletics is a loss that we can all mourn. In March of 2020, Scott Berinato, an editor for the Harvard Business Review interviewed David Kessler, a grief expert, for help in addressing these feelings. Kessler shared with Berinato that what we are experiencing is grief, and that is ok (Berinato 2020.) Kessler suggests that we need to recognize empathy and be compassionate for others and their experiences in order to process our own (Berinato 2020.)

One of the positive actions this community has taken was to set up a drive through graduation ceremony, in which many tears were shed. Students were able to receive their

diploma from a gloved hand, and had the opportunity to stand on a podium in their cap and gown to be photographed with their loved ones. Some students arrived with a carload of family members, while several students arrived alone, forgoing the photo opportunity, not wanting to stand solo in the same place as their peers with multiple supporters. Some of these students have parents who are essential workers, and were unable to attend, leaving their graduating seniors to experience this right of passage alone, and to those families we must be grateful for their sacrifice. Extra cheers for the solo students could be heard down the long row of socially distant staff lining the school's driveway. Other families in attendance would cheer and honk their horns in support of these students. Social distancing did not allow for the desired high fives and hugs, but empathy poured out of every soul in attendance while our lone students reached this milestone. As I look at my students arriving alone in comparison to the students arriving with a car full of family cheerleaders, it is a reminder that our personalities and our life experiences are made up of our interactions with other humans. Compassion and empathy must be embedded into our educational practices, guiding our students as they face these challenges reminding them that it is ok for them to be sad. Quality educators share that sadness and they need to acknowledge the emotional weight that they need to process.

The Science of Interpersonal Neurobiology

The interactions witnessed between our staff and arriving graduates made it clear that compassion and empathy are present in our daily jobs as educators. Our personalities depend on interpersonal interactions, and it is through this interaction that we develop who we are. Intrapersonal Neurobiology is a fairly new area of study that is meant to combine multiple scientific disciplines. Dr. Dan Siegle is a leading figure in the field of Interpersonal Neurobiology. Dr. Siegle researches what he calls *the space between* and he considers that what

happens between humans is related to what happens within us making the space between humans a valid void, which he hopes to fill with compassion, kindness and empathy (Siegle 2015).

Twenty-one textbooks have been published in this area of study, making it a growing field that can provide evidence to assist with empathy building.

Through his studies in Interpersonal Neurobiology, Dr. Siegle has coined the term “mwe,” which addresses the identification of the self as me plus we equals mwe. In an article discussing Siegle’s methods, psychologist Jenev Caddell, explains this as meaning we are who we are in relation to one another because the mind is a relational process that essentially regulates the flow of energy between humans. This flow of energy happens within the whole body. Interpersonal neurobiology tells us that relationships constantly change the chemistry of our brains, and that our personality is formed because of our relationships with others (2018).

According to Siegle, compassion is when we feel the emotion of another and take action to ease the pain. Kindness is when we wish to help someone flourish and empathy is when we are in a state to receive it, open to the feelings of another (Siegle, 2015). He suggests that integration of the we and me is a linking of the energy within and between one another and that is where compassion and empathy can reside in a receptive relationship (Siegle, 2015). Empathy can be reinforced for teenagers, with opportunity and vulnerability in their blooming and pruning brains. Helping students understand who they are as “me” in conjunction with understanding and honoring others’ as the “we” they can assess the ideas presented in interpersonal neurobiology. This theory of empathy cultivation can be easily practiced and incorporated into the classroom.

Interpersonal Neurobiology emphasizes the understanding of others’ personalities and intentions and helping to build empathy in our students. This science has revealed that we are highly social creatures and stresses the importance of healthy relationships for a healthy mind. It

also stresses the importance of taking good care of your connections with others (Caddell, 2018.)

The solution to addressing the decline of empathy is multifaceted, but the research by Caddell and Seigle emphasizes the idea that a combination of knowledge about brain chemistry, personality types and a discussion on interpersonal neurobiology may help guide us while addressing this issue.

Building Empathy Through Intrapersonal and Interpersonal Awareness Assessments

One of the facets required to cultivate empathy in our teenage students can take place in the classroom when we discuss brain chemistry, neural changes during adolescence, and the different personality types. If students are able to better understand the various types of personalities they are likely to encounter, they will have a more comprehensive understanding of the social situations they find themselves in. Having background knowledge of different personality types will cultivate empathy because they will have the increased awareness of the particular social interactions typical for that individual's personality type. By using popular personality assessments, we can help students identify their personality types and the types of those around them. We can build empathy by celebrating individuals' different strengths, helping students realize they are a part of a greater whole and promoting ethical citizenship with a greater sense of personal accountability in their schools. The greater whole can then be identified as what Dr. Siegle calls “the space between” (Siegle 2015).

Teenagers are in a very socially sensitive time as their brains change, so keeping the process positive is key for successful implementation of personality assessments. Since the human brain is very plastic, it is critically important to recognize that an individual's personality type will shift and change. There is a danger in categorizing people in a static way because we do not want to trap an individual into one perception of their personality type. This is especially true

during adolescence since their brains are rapidly changing and developing. There are a number of different personality assessments that range in intensity, time consumption, and depth; three of the most popular personality assessments are the True Colors assessment, Myers-Briggs Type Indicator, and the Five-Factor Personality Traits. In any assessment, it is crucial to emphasize the positive qualities in each personality type and the positive impact diverse personalities can bring to a team. Fear of the unknown or judgement of different personality types can easily happen. Therefore, a clear and distinct understanding of each personality types' attributes is necessary for individuals to feel safe and honored as they explore their own personality in terms of results of an assessment (Clinebell, 2003).

True colors personality assessments. In 2012, I was a participant in the True Colors training as a staff member at Wavecrest Career Academy in Holland, Michigan. Learning about the different personality types of my co-workers helped me develop empathy for their mindsets and honor the strengths of the staff. Recognition of each team member's unique traits and abilities were brought to the forefront of our discussion during this professional development process. If a staff member responded harshly, I was able to consider what the true colors assessment revealed about their personality type, and reframe the interaction in a way that really helped me clear up situations within my own emotional state.

The True Colors personality assessment provides a quick surface assessment of your personality type, which you choose based on colors, images and descriptions. The advantage of true colors is that this assessment can be completed quickly, however, it implies that some personality types might be more or less desirable depending on group dynamics. Not all personalities are equally valued in the True Colors assessment, which could result in bias within

the group against staff members who were considered “blue.” This bias could be avoided if the facilitator is properly trained to honor all traits.

True Colors assessment is a metaphor for the four human temperaments, described by Hippocrates in 460 B.C., Sanguine, Melancholic, Phlegmatic and Choleric. (True Colors Intl n.d.). The colors orange, green, blue and gold represent different primary personality types derived from a combination of research from the work of Sigmund Freud to the Myers Briggs Type Indicator, and others (True Colors Intl n.d.). After researching different models, the creator Don Lowry, came up with what he believed to be a simplified version of several other personality assessments. Lowry’s goal was to make the assessment more usable in everyday life. (True Colors Intl n.d.). The four colors are orange, gold, green and blue. The orange personality types are considered energetic, spontaneous and charming. Golds are punctual, organized and precise. Greens are analytical, intuitive and visionary, and the blues are empathetic, compassionate and cooperative (True Colors Intl n.d.). The simplicity of True Colors appeals to teens because it can be done quickly and was often accurate. For a deeper assessment, the Myers Briggs Type Indicator has a more involved process than True Colors.

Myers Briggs type indicator assessment. The Myers Briggs personality assessment was designed by a mother and daughter team in the 1940s to incorporate 16 different personality traits into usable data (Pittenger, 1993). Using research from Carl G. Jung in the 1920s, Isabel Briggs Myers and her mother Katherine Cook Briggs created the Myers Briggs Type Indicator (MBTI) to assess personality types and categorize them into 16 different personality types (Myers Briggs 2019). The diagram below identifies each of the personality types, which are based on four assessments to determine whether your personality type is more of one or the other between introvert or extravert, sensing or intuition, thinking or feeling, and judging or perceiving

(Mouth Team, 2019). Once categorized, based on your assessment answers, your strengths are calculated into one of the 16 types below.

Figure 1

Chart indicating the 16 Myers Briggs Personality Types



Note. Each square indicates a different personality type as described more specifically in the Myer’s Briggs personality assessment. This chart was obtained from mouth.com in 2019.

In August of 2019, I participated in the Myers Briggs Type Indicator, and was asked a series of questions like, “Would you rather tell a joke, or listen to a story?” We were asked to answer quickly and to go with our initial reaction. The final results were accurately indicative of my personality type. The staff at Hamilton High School participated in the Myers Briggs Type Indicator for our staff professional development. We were asked to complete the assessment on our own time then met together as a group during our staff professional development session to acquire the data. In a follow up session, each faculty member was asked to bring in an object that relates to our strongest trait after taking the MBTI. Our high school administrative team grouped the staff by similar traits, then had us join breakout sessions where we discussed the chosen object as it relates to our strongest trait. As a group we were also encouraged to respond to the person sharing examples of how we have seen their strongest trait in our work environment. This intentional personality exercise helped build empathy between the staff, and also helped to strengthen our community and relationships with one another.

Much like the True Colors assessment, this was a useful tool in understanding my own personality, the traits of my co-workers and the interpersonal interactions in a professional setting. The facilitator was trained in delivering the results in a way that honored each personality type and we were given time to process as a group to find connections between our personality types and the ways we engage in the classroom. The most meaningful aspect behind participating in this process is understanding other peoples’ personalities, which aids in finding sources of empathy in situations where it may be lacking. It is my belief that empathy could be promoted in high school students as well, if they are able to learn about and process different personality types and how they work together as a whole. Students will gain a deeper

understanding of social situations in which they find challenging. Knowing a peer's personality type, and having a base understanding of that type, will help generate empathy for how their peer is experiencing the same situation.

The Five Factor Personality assessment. The Five Factor Personality Traits is another type of assessment that is often used in conjunction with Myers Briggs. According to Kendra Cherry, the five broad personality traits described by the theory are extraversion, agreeableness, openness, conscientiousness, and neuroticism (2019). Like most personality assessments, the big five reveal the most about a personality when the different categories work in combination with one another. It is not likely that an individual identifies with just one single facet of the big five. It is more common for people to have a combination of the big five in some way.

In a study done by Miranda Peeters, the *Big Five* were used to assess whether employees were more successful or satisfied as individual employees or in balanced groups. It was concluded that teams that had a mix of personality types found that individuals in that group were generally happier and more productive (2006). When each personality type is present and working toward a common goal, balance is achieved. The big idea person can be balanced by the one who asks many questions, and can dissect the details. Business environments that value group dynamics appreciate this concept, therefore it could easily be translated into a school setting. Students tend to gravitate toward their friend groups, but greater quality of student work and greater satisfaction can be achieved if personality types are leveraged to create balanced student groups.

Each of these personality assessments is beneficial, but there are disadvantages also. True Colors is a more accessible program, but it is not as detailed so it might not carry the weight and accuracy of the Myers Briggs. The Myers Briggs assessment is costly for administration and

ideally should be presented by a trained professional. The Five Personality Types is accessible online and fairly quick to take, but it really lacks an explanation component. After a class has taken the Five Personality Type survey, a teacher could review the traits that comprise the five during the anticipatory set of a lesson. This will facilitate successful group formation for the project.

Utilizing personality assessments in the classroom is a valuable tool. You can find free versions of personality assessments online, but be cautious. You will need to research the validity of the assessments you are using. In an article written about collaborative learning, the author points out that group dynamics rely heavily on the social emotional health of students, but teachers are educators, not psychologists or counselors and a lack of proper training could hinder the results (Bruffee, 1981). Therefore, while it is beneficial to utilize healthy social constructs in the classroom, teachers do need to be thoughtful and careful when using these techniques. Some school districts may have resources and personnel available to administer personality type assessments. As an educator in Holland, Michigan, a representative from our school district came to administer the True Colors assessment in a workshop with the school's student government class. I would encourage educators who are interested in providing assessments to explore their options within their districts before making a decision on providing them.

Where to go From Here

Personality type evaluations can promote empathy in an education setting by helping a student reflect on their own personality type and respectfully appreciate the personality types of others. My administration encourages us to spend a few days working on classroom climate and culture at the beginning of each trimester. During this time, I will incorporate a lesson on neurodevelopment and will also address the findings in the field of interpersonal neurobiology to

give students a background on why personality type assessments are important in regards to cultivating empathy and team collaboration. This will be linked to Twenty First Century Skills, which are also measurable standards provided by our district. Three of the Twenty First Century Skills I address in the art classroom are personal accountability, team collaboration and ethical citizenship. As a class, we will discuss how this relates to empathy and why empathy is important in a global society. In a lesson on hand building in clay, students will be focused on empathy by considering their own experiences during this global pandemic at the end of the 2020 school year in rural Hamilton. As a group, the class will brainstorm interview questions to ask students in a neighboring urban school district regarding their experiences during the 2020 pandemic. The questions will be a starting point as students cultivate a conversation with someone from a community outside of their own. Tapping into empathy, students will use the interview responses to design a symbolic vessel or totem to give to their partner. In an effort to promote reciprocal empathy, the overall goal will be for two different school districts to swap projects with one another, creating two complete totems to honor one another in their respective districts. The full lesson plan can be found in appendix A.

Conclusion

In our increasingly isolated world, we must still recognize that the human species has always, and will continue to rely on social connectedness. Empathy is a crucial part of the human experience. People do not thrive while living in isolated circumstances; the COVID 19 pandemic has thrust us into isolation, but we will survive this pandemic. With the closing of schools due to the Coronavirus, the critical need for empathy in our schools has intensified. Throughout this pandemic, our teenagers are finding ways to stay connected via technology while maintaining social distancing. This continued connection to provide positive socialization is critical for the

developing teenage brain. The physical and biological complexities that fuel empathy have been challenged during the pandemic and this has shown us how critically important emotional empathy is in our nation and in our schools. Infusing research surrounding interpersonal neurobiology into our curriculum also allows students to become acutely aware of their connection to a greater whole. Educating our teenage students about interpersonal neurobiology will aid in the understanding that their personalities are impacted by their interactions with others, thus cultivating empathetic practices among themselves and their peers. By addressing diverse personality types and continuing to intentionally make connections with the teenage brain, interpersonal neurobiology, and the incorporation of neurological research into our classroom curriculum, we will address another pandemic, the alarming decline in empathy within our classrooms.

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Appendix A

Empathy Totem

Lisa D. Riley

9-12th Grade, Ceramics I

Allocated Time – 10, 60 minute class periods (with a break for firing.)



Outcome Statement:

Ceramic students will design an individual ceramic symbol based on a reflective interview of someone who is outside of their school community. The symbol will be based on an interview centered around individual experiences during the 2020 Coronavirus Pandemic. Each piece will be placed together to create a community totem sculpture. This lesson is important because it cultivates empathy. Survival of the human species has always relied on social connectedness; in an increasingly isolated world positive socialization and emotional empathy is more important than ever before. Empathy is not a single part of our human core, but rather a complex mix of physical and biological elements

Objectives - Students will:

- Evaluate the impact of the 2020 Coronavirus Pandemic and how it affected their lives for the better, or what challenges they may have faced.
- Interview a student from a neighboring school to gain empathy about how the pandemic has impacted them.
- Analyze their interview answers, and use the creative sequence to develop ideas for their sculpture.
- Create 3-5 thumbnail sketches that visually describe their intentions for their final project.
- Use hand building and/or clay throwing techniques to create a totem element that describes their interview partner and symbolizes their experience with the Coronavirus in 2020.
- Categorize their final pieces of their totem, and as a class make aesthetic choices on how to arrange their components to create a greater whole.

Criteria:

- Clay sculpture will need to be between 8-10 inches wide, and 10-12 inches tall, in order to piece together all work into a single totem.
- Clay sculpture will show texture, as the final color will be high fire clay, with a black underglaze/oxide for emphasizing texture.
- Final artist's statement identifying empathy either within themselves or their interview. Must be 1 to 2 pages in length.(This empathy may be of positive or challenging situations during the pandemic.)
- Students will print a QR code that can be fired onto the clay piece so a view may scan and listen to the story behind their sculpture.

**Visual Art Standards:
Hamilton High School Power Arts Standards**

Art.HHS.1 - Exhibit, present and publish quality works of art.

Art.HHS.3 - Apply organizational principles and artistic skills to design products that symbolizes the essence of an idea.

Art. HHS.4 -Recognize and describe the relationships between personal experiences and the development of artwork.

Art.HHS.7 - Apply skills and knowledge to creatively problem solve in the arts and reflect on possible visual solutions.

S4S - Hamilton Work Standard - Practice skills while appropriately and safely managing materials and tools in the art studio.

Integrated Standards:**Social Studies**

P2.1 Apply methods of inquiry, including asking and answering compelling and supporting questions, to investigate social science problems.

English

W2.A Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

Universal Design for Learning and Presentation Diversification

Multi-Sensory Consideration:

- Visual - View Holbein's "The Ambassadors" to discuss how/when the view changes their perspective, the image shifts.
- Interpersonal - Otto Kamensek, "Chronic Disease Staircase"-Reflect on how this piece instills empathy with the viewer by discussing the sculpture.
<https://www.tandfonline.com/doi/full/10.1080/23311983.2017.1355611?needAccess=true>
- Auditory - Listen to Roberto Lugo's talk, "Where the Wu Tang Clan meets Worcester Porcelain" <https://www.wexlergallery.com/roberto-lugo/>
- Kinesthetic - Harry Potter Jelly Bellies. Students will do a taste test with a partner and record their reactions. Did students who received a "vomit" flavored Jelly Belly feel more empathy for their partner before the taste test? (Based on the study discussed by Christopher Bergland in The Neuroscience of Empathy. Retrieved May 24 from www.psychologytoday.com/us/blog/the-athletes-way/201310/the-neuroscience-empathy)

Mind Style/Presentation Consideration:

- Novelty - Interviews with a partnering school district to have open dialog about how the Coronavirus Pandemic impacted each of us.
- Sequential - PowerPoint to present artists, and lesson objectives. Students will have access to learning targets and assessed power standards throughout the lesson both via google classroom and on the board.

Anticipatory Set: Students will play "We're Not Really Strangers" on day one of this lesson. The questions get gradually deeper as they play, so it is likely that they will learn something new about their peers. They will then create a playdough sculpture or vessel that is a gift for their peer.

Materials/Tools:

Clay-High Fire	Water
Clay tools	Wedging Table
Wheels for throwing	Kiln
Clay Mats	Ceramic Transfer paper
Water bowls	Underglaze or oxide
Copy of "We're Not Really Strangers"	Paint Brushes
Jelly Bellies (Harry Potter Themed)	

Resources:

- Erica Shirey Ceramics
- Art of Otto Kamensek
<https://www.tandfonline.com/doi/full/10.1080/23311983.2017.1355611?needAccess=true>
- Roberto Lugo <https://www.wexlergallery.com/roberto-lugo/>
- Rachel Sligh, Holland High School Ceramics Teacher
- Ceramic Transfer Resource: <https://ceramicartsnetwork.org/shop/ceramic-transfer-printing/>
- Holbein, The Ambassadors: <https://www.nationalgallery.org.uk/paintings/hans-holbein-the-younger-the-ambassadors>--The Creative Sequence, Jason Pasatta
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Concepts and Vocabulary:

- Wedging
- Handbuilding
- Throwing
- Decal
- Leather Hard
- Bone Dry
- Bisqueware
- Greenware
- Scoring and Slipping
- Empathy
- Inquiry
- Coronavirus Pandemic
- Positive socialization
- Symbolism

Procedures:

- Day One: Students will enter the class and be instructed to sit with someone they do not know well. Printed sets of the game “We’re Not Strangers” will be at their tables. Students will be given 15 minutes to play this game. Students will take notes on things they learned about their partner in their journal, and sketch an idea for a prototype of a ceramic symbolic sculpture representing their partner’s thoughts. Students will be given another 15 minutes to sculpt their gift for their partners out of playdough, then explain in their journals why they designed this piece for them. Students will have an opportunity to share their sculptures with the class.
 - Students will then be given a small cup of “Harry Potter Jelly Bellies.” Some are normal flavors, but there are a few that are disgusting flavors, like spoiled milk or vomit.
 - Students will conduct a taste test with their partner, noting the reactions. Did students who had a “bad” flavor feel more empathy before their partner tasted? We will discuss the research referenced in Bergland’s article, and how this relates to empathy. What is empathy and how do we cultivate it? Is empathy an important characteristic for our society? Why?
 - With remaining time we will review high fire clay notes, processes and procedures.
- Day Two: The painting “The Ambassadors” by Holbein will be on the screen. Students will be asked to examine this painting and discuss what they see. The Ambassadors is a formal painting of two young ambassadors done in 1533. In the foreground there is a distorted image of a skull, a symbol of mortality. The skull can only be seen if the view physically changes their position to see it. They will then be instructed to change their position to alter their view. Printed copies will be available for them to look at each table. Students will think, pair, share and discuss how changing their viewpoint changed the image. We will discuss the activities of day one and how this connects, identifying “empathy” as the theme.
 - I will present a PowerPoint on the artists Otto Kamensek and Roberto Lugo; lesson objectives will be shared along with the assessment rubric. Students will have access to learning targets and assessed power standards throughout the lesson both via google classroom and on the board throughout this lesson.

Students will be notified that they will be interviewing a student from Holland High School at this point.

- Review of high fire clay properties, processes and procedures will happen after the power point.
- For homework-students will read “That Discomfort You are Feeling is Grief,” and complete a writing prompt. Students will be asked to reflect on both the positive and negative aspects of the Pandemic, acknowledging that they may be both good and bad in any event.
- Day Three: Students will share what they learned from the homework article. As a group, students will develop interview questions to prepare them for a zoom chat with a student from a neighboring school district. Questions will be approved by both teachers before interviews commence. Discussions may deviate from this list, but it will help prompt conversation.
- Day Four: Interviews via zoom will happen with students from a neighboring district. Students will take notes about their partner in their sketchbook and begin sketching ideas for their totem piece. Students will utilize the “Idea Quota” protocol from the creative sequence by writing or sketching 100 ideas in 10 minutes, (Few reach 100, but it is the pressure that helps them free write/sketch to help flush out ideas.) Students will then narrow down their 100 ideas to 10, then to 5. Students will sketch out their top 5 ideas in terms of visual aesthetics.



Homework: Students will write their first draft of their interview story and submit it via google classroom for teacher review.

- Day Five: Students will place their 5 ideas on their table and go on a “gallery walk.” Students will use the “Dot Voting” protocol to narrow their 5 ideas to 1. Everyone will have 3 dots to distribute on someone else’s ideas. A final sketch will be completed and approved before beginning construction. Final sketches will be shared with the student’s interview partner to see if the symbolic sculpture was true to their pandemic experience. Construction may commence on this day.
- Days Six-Eight: students will work independently on their totem pieces. Teacher will walk around the room providing individual critique. Homework will involve writing their artists statement about their interviewee and how this work represents the students they interviewed. Students will record this story and create a QR code that will be printed on a decal to fire onto their pieces.
- Day Eight: Students will share their final greenware sculpture with the class for a critique, accepting any suggestions. This will be the final day to alter the sculpture before the drying and firing process.
- Day Nine: A week or so may be needed for drying/firing time, so at this point, students will use an oxide wash to bring out any textures from their piece, and also adhere their QR code decals.
- Day Ten: After all pieces have been fired, students will all aid in completing the final totem pole, and installing it in our front walkway in front of Hamilton High School. Students will assist in mixing cement to pour in a bucket or planter, then insert metal rods that the totem pieces will be stacked on.

Closure:

- We will celebrate with a snack and beverage, and share our work with students at Holland High School, likely via zoom.
- Read aloud their essays about their interviewee
- Discuss what they learned from themselves and from each other.
- Discuss pluses and deltas from this experience.
- Review of all vocabulary and concepts - A google form assessment will be assigned for students to independently identify vocabulary words.
- Rubric - Students will self-assess their work to evaluate if they reached the success criteria.

Accommodations: Anticipated accommodations include our CI group, which typically join our general art classes. These students have teacher aids, but will also be partnered with their “PAL,” a student mentor to assist with clay procedures.

Assessment:

Hamilton High School Art Power Standards Rubric:

	4	3	2	1
<p>Art.HHS.1 Exhibit, present and publish quality works of art.</p> <p>Finished totem piece is on display, accompanied by a QR code leading to the student's artist statement.</p>	<p>-Artwork is intentionally created in reflection of student's interview partner, using excellent craftsmanship skills. -Work could be exhibited as presented without further resolutions needed, as a piece of a larger totem. . -QR code is visible, linking to a thoughtfully written artists statement.</p>	<p>-Artwork is intentionally created in reflection of student's interview partner using quality craftsmanship skills. -Work could be exhibited as presented with some further resolutions needed, as part of a larger totem. . -QR code is visible, linking to a well written artist statement.</p>	<p>-Artwork is created using some craftsmanship skills and is a reflection of interview partner. . -Further resolutions are needed before exhibiting work as a part of a larger totem.. -Lacking detail -QR code is somewhat visible, and links to an unresolved artist statement. .</p>	<p>-Skills are being practiced. -Further resolutions are needed before exhibiting work. -No detail evident. -Not a resolved composition. -Artist statement not resolved.</p>
<p>Art.HHS.3 Apply organizational principles and artistic skills to design products that symbolize the essence of an idea.</p> <p>Final Clay Totem Sculpture</p>	<p>-The organizational principles of design and artistic skills are independently utilized to fully resolve a totem sculpture using hand building or throwing techniques, that symbolizes the essence of an idea based on student interviews. -Sculpture is between 8-10inches wide, and 10-12 inches tall. -Sculpture shows strong use of texture.</p>	<p>-The organizational principles of design and artistic skills are utilized to resolve a totem sculpture using hand building or throwing techniques, that symbolizes the essence of an idea, based on student interviews. -Sculpture is between 8-10 inches wide, and 10-12 inches tall . -Sculpture shows use of texture.</p>	<p>-With help, the organizational principles of design and artistic skills are utilized to resolve a totem sculpture using modified clay techniques, that symbolizes an idea based on student interviews. -Sculpture is not quite the correct size. -Minimal use of texture is evident.</p>	<p>-The organizational principles of design and artistic skills are not resolved in this composition. -Symbolism of an idea is not evident. -Sculpture is not complete.</p>
<p>Art. HHS.4 Recognize and describe the relationships between personal experiences and the development of artwork.</p> <p>Written artist statement based on student interviews with Holland High School students regarding the 2020 Coronavirus Pandemic.</p>	<p>-Analyze personal aesthetic choices through writing a clear artist statement based on student interviews. -Using accurate artistic vocabulary, student is able to clearly defend their aesthetic choices. -Student is able to clearly analyze the quality and effectiveness of ones artwork, including describing changes made, or possible edits that could be done.</p>	<p>-Analyze personal aesthetic choices through writing a clear artist statement based on student interviews. -Using artistic vocabulary, student is able to defend their aesthetic choices. -Student is able to analyze the quality and effectiveness of ones artwork, including describing changes made, or possible edits that could be done.</p>	<p>-Analyze personal aesthetic choices through writing an artist statement based on student interview. . -Uses some artistic vocabulary, student is able to describe their aesthetic choices. -Student is able to discuss their quality of work.</p>	<p>-Student can write an artist statement about this experience. -Artistic vocabulary is not used, student is unable to describe their aesthetic choices. -Student is unable to discuss their quality of work.</p>
<p>Art.HHS.7 Apply skills and knowledge to creatively problem solve in the arts and reflect on possible visual solutions.</p> <p>Create 3-5 thumbnail sketches based on an interview with partner. Follow creative sequence protocols to narrow ideas, and decide on a final outcome.</p>	<p>-Student is able to independently apply skills and knowledge to creatively problem solve. -Student is able to independently design possible visual solutions and execute them so that personal intentions are carried out.</p>	<p>-Student is able to apply skills and knowledge to creatively problem solve. -Student is able to design possible visual solutions and execute them so that personal intentions are carried out.</p>	<p>-With help, student is able to apply skills and knowledge to creatively problem solve. -With help, student is able to design possible visual solutions and execute them somewhat.</p>	<p>-Student is not able to apply skills and knowledge to creatively problem solve. -Student is unable to design possible visual solutions and unable to execute them.</p>
<p>Hamilton Work Standard - Practice skills while appropriately and safely managing materials and tools in the art studio.</p>	<p>Student completes practice projects and skills with accuracy, or are able to show a clear example of their ability in a substitute form. -Student is able to demonstrate a responsible work ethic in the art studio at all times.</p>	<p>Student completes practice projects and skills with some accuracy. -Student is able to demonstrate a responsible work ethic in the art studio most of the time.</p>	<p>Student completes some of the practice projects and skills with some accuracy. -Student is able to somewhat demonstrate a responsible work ethic in the art studio.</p>	<p>Student completes some of the practice projects and skills with some accuracy. -Student is unable to consistently demonstrate a responsible work ethic in the art studio throughout the class.</p>

Appendix B

Figure 1

Sam Figuereo Wearing A Mask



Figure 2

Michele Figuereo Wearing A Mask



Figure 3

Rebecca Riley Wearing A Face Mask



Figure 4

Lisa Riley Wearing A Face Mask

