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Asking Questions about Learning Disabilities: A Gateway to Self-Determination

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Introduction

The students I teach range from 9th to 12th grade and have a variety of learning disabilities. Some have to do with processing, others emotional regulation and still others social communication. Most of my students know little to nothing about their disabilities. I am unsure if this is due to lack of parental and teacher knowledge, sensitivity towards a very touchy subject or something entirely different; though I imagine it is a combination of many things. Regardless of the reason, the problem is that students have very limited knowledge of their disabilities. This lack of self-knowledge seems to breed the stigma that many of my students feel in relation to school and learning. A large portion of the students I teach have a very difficult time participating in class discussions, rarely if ever ask questions about the content in their general education classes let alone questions about their disabilities. In addition, most never speak up for the learning accommodations that they are entitled to. Through this unit students will be encouraged to ask questions. We will talk about why it is important to ask questions about their disabilities. Through this questioning, the students will become more comfortable with their learning difficulties. This comfort will help to produce confidence in their ability which will in-turn breed self-advocacy, a component of the all-important and ultimate goal, self-dependence. My strategy is to use, and rely heavily upon questioning to both start and sustain the process towards students acquiring self-confidence, self-advocacy and self-dependence.

Rationale

My goal as a special education teacher is to move students with learning difficulties towards independence in the general education classroom. This happens by increasingly scaffolding student skills and strategies, enabling them to move to the next least restrictive environment and succeed with less support. The students I teach are in one of the least restrictive environments available to learners with disabilities. They have a class with me in which we work on skills and strategies they can use in their general education classrooms to help access the curriculum. These strategies can be specific ways of taking notes, listening to an audiobook of the assigned reading while they follow along, or extra time on a math quiz, just to name a few. This idea of

independence for learners with disabilities has gained momentum over the years and coalesced in a theory called Self-Determination. [1]

I see very little independence in my students when it comes to succeeding in spite of their disabilities. One of the overarching issues which I feel is one of the most important tenants of a self-determined learner's skill-set, is self-advocacy. Struggles with self-advocacy can take many shapes. One issue I frequently come across is student embarrassment or timidity in approaching a teacher who needs to be alerted or reminded that a particular accommodation is in place or would be beneficial; another is lack of student self-knowledge, specifically related to their disability. These struggles are the first to be dealt with in the self-directed learner's model, as illustrated by the combination of the first two tenants in a skill set as devised by Ward and Kohler. [2] If students knew more about their disabilities they would know more about the way in which they learn and what strategies work best for them in each classroom. In the case of most special education students, this is where their special education teacher jumps in.

As a special education teacher whose students infrequently exhibit attributes of a self-determined learner, I find that I often work in triage; working towards a strategy or solution only after a problem arises in a student's general education class. A student that cannot make any sense of her notes come to me after failing a test and tells me why. She explains that she has a hard time following the teacher and taking notes at the same time. This is something that we can attribute to her specific learning disability in auditory processing speed. After discussing the problem we try out a strategy we think may work: the teacher provides a copy of the PowerPoint presentation or one of her classmates with excellent penmanship takes notes on a piece of carbon paper and all her energy and focus can be concentrated on listening to the lecture. If this student would have advocated this problem with her general education teacher when the year started an agreement of this kind could have been reached before her failing test grade and all of the anxiety that came with it. It would be difficult for this to happen however, if the student knows little to nothing about her disability and how it works.

In the scenario above, as in most scenarios I encounter, special education teachers help liaise student/general education teacher relationships when considering and applying accommodations, learning strategies, and coping skills among others. When a general education teacher forgets to implement an accommodation that is written in a student's IEP, often times the student or guardian of that student contacts the special education teacher who in turn discusses the situation with the general education teacher. The special education teacher also uses the information gleaned from discussions with students and parents like this to create appropriate accommodations and goals for the student's IEP. In the case of some of my incoming students, some will surely be unaware of what an accommodation actually is, as well as how or why they should ask for it. If students do understand all of this information, they often times feel embarrassed about asking for it and navigating the questions from their peers that naturally result. It is difficult to field questions about something you know little about.

I don't believe any of my shorter students would feel shame in using a step stool to accommodate their needs in retrieving a bowl that I placed on a high shelf while flat footed. We both have hands and fingers with which to grasp the bowl, and arms and legs that work similarly. The difference, however, is that my short student needs to use the stool as an extension of her limbs. We have a biological difference in limb length just as we have a biological difference in brain function. My students all have brains and the ability to learn things. Some, however, need accommodations because of how they learn best and its relationship to the way the students are expected to learn in school and shouldn't be ashamed to ask for them. Many students wear glasses as an accommodation for the difference in their focal capability. My students happen to need accommodations for

the way their brains work, though their lack of knowledge of their disability disallows them to make the comparison with all the accommodations they both see and take part in on a daily basis.

These accommodations and the confidence to ask for them become very important when students graduate high school and matriculate to college. Almost all of my students are college bound and the moment they walk across that platform and move their tassel from one side to the other their IEP is no longer valid and they cease to be a "special education student". When freshman year of college begins, services for learners with disabilities will be available and in many cases things like assisted technology and access to tutoring will improve. The difference is, however, that students will not be flagged and tested by special education teachers and school psychologists, nor sought out and reminded about special access to various kinds of assistance. Instead students will be expected to take these matters into their own hands and seek services out. There are often people put in place that will help with some of the liaison work between certain stakeholders, however, they still expect students to advocate for their needs both to the department as well as to the teachers and tutors.

I would like their asking for academic accommodations in high school to become as easy and worry free for them as asking for a step stool or using a pair of glasses, because they will soon be in college and not have me to pester them. Furthermore, these students for the most part, have above average intelligences (though very few know or realize this) and should not be scared to participate in class or speak up for their needs because they may be perceived as "stupid". In a 2002 study, Hartman-Hall and Haaga found that students who found their disabilities more stigmatizing were less likely to seek tutoring or accommodations on the college level. [3]

Self-determination skills, specifically self-advocacy, do not stop after school is over, and students will use these skills for the rest of their lives. In any job or career, self-awareness of particular struggles and the ability to express those struggles and offer alternatives and strategies that work better are paramount.

My goal in this unit is to, at the very least, propagate within my students a powerful sense of worth and ability and to use this knowledge to advocate for their needs and grow towards becoming self-determined learners. I want this for my students because the research I read that involves teaching students about their disabilities points towards increased academic achievement, positive adult outcomes and a higher sense of self-worth. [4567] As a special education teacher I feel that this is my job, and after much searching I am beginning to feel like I am on the right track.

This unit will illustrate my plan for planting the seed of self-determination in each of my students with disabilities. As most of my students know little about their learning disabilities and less about those of their peers, the first step is to educate them on the three major disabilities in my classroom: specific learning disabilities, autism spectrum disorders, and emotional and behavioral disorders. Once the students possess knowledge of their learning struggles we can begin to discuss strategies and coping skills to combat these learning roadblocks. To become self-aware of who they are as learners, students should know what is difficult for them, why, and how to circumvent or supplement other strategies to overcome the obstacle. We will explore this through association, learning inventories and multimodal activities.

Background

Self-Determined Learners

Wehmeyer defines self-determination as "acting as the primary causal agent in one's life and making choices and decisions regarding one's quality of life free from undue external influence or interference." [8] Ward and Koehler compiled and evaluated activities taken from projects developed by teachers that focus on strategies that foster self-determination. Using this data they developed a set of traits or goals that teachers and students can use to work towards becoming self-determined learners. These traits are as follows: 1. Evaluate their skills, 2. Recognize their limits, 3. Set Goals, 4. Identify options 5. Accept responsibility, 6. Communicate their preferences and needs, and 7. Monitor and evaluate their process. [9]

Self-determination goes beyond its application in education and can be likened to a political movement that strives to attain fundamental principles of life-quality. People with disabilities are a part of a group that has been historically denied certain rights and self-determination helps people who are at times overlooked to stand up for their rights and ask for equal treatment despite their disability. [10] This is important for the lives of my students; when they finish whatever education they choose to pursue, they will eventually face life out of school and these tools will be invaluable. Michael Ward writes a call to action for people with disabilities to stand up for their independence and fight against things like learned helplessness and to learn from other minority groups "to take pride in their own history and culture." [11] As a special education teacher statements like these give me goose bumps and fill me with excitement for the opportunity to teach and coach my students through the process of becoming more self-aware.

Special Education

The ED Section 504 regulation defines a person with a disability as "any person who: (i) has a physical or mental impairment which substantially limits one or more major life activities, (ii) has a record of such an impairment, or (iii) is regarded as having such an impairment." [12] Students that are enrolled in special education classrooms have a wide range of educational disabilities. In this unit, however, I plan to focus on students with specific learning disabilities, students on the autistic spectrum, and students with emotional and behavioral disabilities. These are three of the 13 eligible disabilities as recognized under IDEA [13]

Pervasive Developmental Disorders or Autism Spectrum Disorders

Both autism and Asperger syndrome, which are listed separately in the DSM-IV-TR, fall under the overarching category of pervasive developmental disorders. [14] These disorders are "characterized by severe and pervasive impairment in several areas of development: reciprocal social interaction skills, communication skills, or the presence of stereotyped behavior, interests, and activities." [15] The only difference between these disorders is that students with Asperger's Disorder have no "significant delays or deviance in language acquisition." [16]

Researches are still unclear as to the cause of these pervasive developmental disorders, and theories have changed dramatically since the identification of the condition by Leo Kanner in 1943. [17] The original theory that it was caused by environmental factors and parental personality folded in the early 1970s and since the mid 1990s it is generally believed among experts that the disorder is "a highly heritable neurological disorder with a genetic basis." [18]

To qualify for special education in California, where I teach, students on the autistic spectrum must satisfy a combination of "autistic-like behaviors". These behaviors are:

(1) An inability to use oral language for appropriate communication;

(2) A history of extreme withdrawal or relating to people inappropriately and continued impairment in social interaction from infancy through early childhood;

(3) An obsession to maintain sameness;

(4) Extreme preoccupation with objects or inappropriate use of objects or both;

(5) Extreme resistance to controls;

(6) Displays peculiar motoric mannerisms and motility; and

(7) Self-stimulating, ritualistic behavior. [19]

Though my students meet the eligibility criteria, and exhibit some of the characteristics listed by the DSM they are considered "low" on the autistic spectrum, that is, most have "high functioning" autism or Asperger's Disorder.

These students have difficulty making friends, and struggle with group work. I often mediate situations in which these students have offended or angered other students with unintentionally inappropriate or hurtful language. Pragmatics and control over the volume and tone of voice have also been struggles for these students. When my students with autism experience an extreme emotion such as being very excited, they often exhibit stereotypy such as rocking in their chair or arm flapping, a self-stimulating behavior sometimes referred to as "stimming". These difficulties among others illustrate some very unique learning challenges, both in high school as well as in their adult life that can only be overcome by working towards coping strategies and learning more about the specifics of their disability.

These difficulties uncover the possibility of future struggles both in college as well as in the workplace. The majority of people in the world have to interact with and often times collaborate with peers and coworkers. The students with autism that I teach do not often recognize the differences in the ways they interact with their peers and unless this is brought to their attention it will be difficult to discuss and make adjustments. Many of the students I teach are a part of social skills groups in school and are encouraged to join clubs and participate in team sports; however, they are not often told why.

Social skill groups teach the acquisition of social skills or build upon existing skills. They also encourage students to promote and model these skills to each other. [20] Apart from their group work many students at my school create "Social Stories"; these are short stories, about a line or two in the case of my students, that begin with the problem the student is facing. An example of a social story would be: "Sometimes when Mark gets a bad grade on an assignment or test he gets frustrated. When he gets frustrated Mark can..." The social skills teacher and Mark then work together to think of a list of self-imposed interventions that he thinks would be beneficial in helping himself come back to baseline. This again is an intervention that would be more effective if Mark was aware of his autism and held some stake in seeking out the intervention.

There are still many debates having to do with autism spectrum disorders, specifically those on the higher

functioning end of the spectrum. [21] If one of my students is able to obtain enough strategies and skills to no longer need any special education classes or support are they still disabled? Still autistic? I want my students to have enough knowledge of autism and the spectrum to decide that for themselves. There are more and more groups popping up who advocate that people with high functioning spectrum disorders are not suffering and are not at a deficit. The Autism Network International was a group that formed with these thoughts in mind. [22] All my students on the spectrum should have the self-knowledge and opportunity to join and advocate for who they are in a group like this.

Specific Learning Disabilities

The majority of my students contend with specific learning disabilities. Students with this disability have difficulty using or understanding spoken or written language; this includes students' ability to listen, think, speak, read, write, spell or do mathematical calculations. Some of the struggles that most people think of when they talk about learning disabilities, such as dyslexia and processing issues, fall under the umbrella of Specific Learning Disability (SLD). In the 1998-1999 school year, just under half of the 6 million students in the united States who received special education services received services for a SLD. [23]

It is widely accepted that the most common cause of SLDs is genetics. Since the beginning of the 1900s, SLDs have been thought to be passed down genetically. Another report claims that 23%-65% parents with dyslexia produced offspring with the disability. [24] I have personally worked with parents who talk about having had very similar, if not exact learning struggles as their child. Dyslexia is the most prevalent and well known SLD which is housed under the umbrella of the specific reading disabilities category, making up around 80% of students with a SLD. [25] The majority of the students I teach with a SLD fall under this reading disability umbrella.

There is also evidence that Specific Learning Disabilities stay with students into adulthood and remain with them for life. [26] In light of this information it is paramount for the students to understand their disability and what is means to them as a learner, as well as strategies they can use when faced with a situation in which their disability surfaces. If they learn these coping skills and strategies now, they will be able to use them throughout their lives, improving and adapting them to whatever obstacles come their way.

Eligibility for special education services is a little different for students with SLDs. When school psychologists and special education teacher test a student who may have an SLD they test both intellectual ability as well as achievement in certain academic areas. Intellectual ability gives information about student intelligence, similar to an IQ test. These tests do not assess academic content, but things like memory, processing and reasoning often using pictures and shapes. In contrast the standardized academic tests that are administered test students' academic knowledge in areas like spelling, reading comprehension and math, though they also touch on processing and memory. After both tests are administered the school psychologist and special education teacher compare data and look for discrepancies in specific areas that correlate based on the name brand of tests being used.

California state criteria requires there to be a severe discrepancy between intellectual and academic achievement. It is also required that this discrepancy have an impact on student achievement, because if students are accessing the curriculum they generally do not qualify for special education, nor do students qualify if they are lower than average intellectually and have a similarly low achievement level. [27] This is unfortunate, as these learners often need extra assistance as well. This being said the damaging stereotype of students with learning disabilities being unintelligent is completely false.

Many of my students struggle with the stigma of having a SLD, and many look down upon their ability to learn by referring to themselves as "dumb" or "stupid" when the fact of the matter is that in the vast majority of cases these students are of average intelligence and often in the above average or superior range in many categories. They have to be intelligent to qualify! It is unfortunate that my students, their general education peers, and many of their teachers do not realize that this is the case. This unit will hopefully bring that information to light.

Because the specific disabilities housed under this label are so varied, the struggles that each of them contend with are equally vast. The qualifying areas include: oral expression, listening comprehension, written expression, basic reading skill, reading fluency skills, reading comprehension, mathematics calculation, and mathematics problem solving. [28] As you can imagine within each of these criterion there are an array of struggles which are very specific to each learner.

Many of my students struggle with processing issues whether auditory or visual; these processing deficits make a normal lecture or assignment seem so difficult that it seems easier to not do it and be labeled as lazy. Students who write notes while a lecture is happening but because of an auditory processing issue have no idea what the connection of the words on their paper is to what was said in the lecture can be seen as slackers by some teachers if their test scores or work output are low. Some students have the opposite difficulty and are told they have an assignment due at the end of the period and are given a sheet of paper on which the directions are written. If the student has a visual processing disorder and all of their questions are answered by the teacher telling them to refer to the directions that are already written I cannot blame these students for feeling unintelligent. I can however see the importance for the self-advocacy piece of self-determination and I desperately want it to come across to my students.

Fortunately there are many strategies for each struggle a student with a SLD may have. There are many books and even entire programs for things like dyslexia. Carbon copies of notes for a student with a processing disorder; books on tape for a student who struggles with visual processing and reading comprehension; use of a laptop for students with dysgraphia and so on. The use of a laptop or word processor is a great example of an assistive technology device that helps students with SLD cope with their disability.

The amount of technology aimed at students with disabilities is quickly growing and becoming incredibly advanced. Many college campuses, which usually have more money budgeted for technology of this type, have some of the most cutting edge devices. A local community college that many of the students at my school end up attending give special education students a pen that has a recorder on the end of it which records lectures. This, however, is no ordinary pen recorder; students simply press record on the pen and take notes throughout the lecture, then when they are at home reviewing the information they have written and have questions about a specific part of the lecture, they simply touch their pen to the part of their notes in question and the pen-recorder plays the corresponding part of lecture given at the time that particular note was taken. This is only one example in a sea of incredibly accommodating technology that is growing every day. Although this technology is incredibly exciting, students with learning disabilities must advocate for these things in order for them to be available.

Emotional Behavior Disorders

Like the other disabilities covered in this unit Emotional and Behavioral Disorders are hard to pin down. The problem, as with the others, is that boundaries written for eligibility are not as sharp as some professionals in the field would prefer. [29] The parameters that are given for someone with a disorder of this kind are vague and

it is often up to the judgment of the person assessing the student whether or not they qualify.

In order to be eligible for special education under the category of Emotional or Behavioral Disorder (ED) the Individuals with Disabilities Education Act (IDEA) stipulates that the students must exhibit characteristics one or more of the following five categories over a long period of time and it must have an adverse effect on their educational performance:

1. An inability to learn which cannot be explained by intellectual, sensory, and health factors.

2. An inability to build or maintain satisfactory relationships with peers and teachers.

3. Inappropriate types of behavior or feelings under normal circumstances.

4. A general pervasive mood of unhappiness or depression.

5. A tendency to develop physical symptoms or fears associated with personal or school problems. [30]

Notice that many of these criterion overlap with concerns or eligibility criteria of students with Specific Learning Disabilities or those on the autistic spectrum.

The issue of the unit however is not the validity of a student's disability but their knowledge of what that disability is and how it affects them as a learner and as a regular old kid. Unlike the other two disabilities in this unit most of the behaviors under the umbrella of ED are caused not by biological factors but environmental. Psychiatrists and psychologist divide ED behaviors into two categories: externalizing and internalizing behaviors. Though the DSM lists some behaviors such as Attention Deficit Disorder and Attention Deficit Hyperactivity Disorder, whose effects are thought to be caused by biological factors, under this ED umbrella, students with ADD and ADHD do not qualify a student for special education services as ED.

Some of the behaviors students who qualify special education under the ED category demonstrate are: separation anxiety, selective mutism, anxiety, depression, and anorexia among others. Many of my students qualify for services as being ED through in multiple eligibility categories and with multiple struggles

These students run up against a variety of obstacles based on their sub-categorical disability and combat these obstacles with a wide variety of strategies. Anger management techniques, counseling, improved study habits and organization among many others help these students to cope with their disabilities. In my experience coping strategies are much more effective when a student recognizes her struggle and sees the connection of that difficulty with the proposed strategy. This knowledge and empowerment comes from working towards becoming a self-determined learner

Learning Styles

Learning disabilities have an effect on the way special education student prefer to learn. Students in my class, when given the option of presenting something orally or giving it to me written often end up having a preference that correlates with their learning difficulties. This makes sense as they are using strategies and coping with their learning struggles. The same happens when students who struggle with socialization choose to work alone on a project rather than with a group, even if it means they will have to do more work. This can be both good and bad. I am glad that students are taking control of their learning and using learning styles that come more easily to them, but I am leery that this stifles the possibility for improvement in areas that are challenging, specifically in the case of learners with social struggles.

Learning styles deal with a student's preference in learning visually, aurally, kinesthetically, and a variety of other subcategories and combinations. To find out a students learning preference learning style inventories are often given by teachers. Teachers use these inventories to help students discover with which modality they learn best. Some inventories like the Learning Style Analysis go so far as to quiz students on their preferred time of day to learn as well as the lighting and sound in their study area. [31]

Many learning style systems, the foremost being the Dunn and Dunn Learning Style Model, urge teachers to use the data they gather from learning style inventories to inform the way they receive and complete assignments. Dunn and Dunn contend that when students are taught, and asked to complete material in their preferred learning style, it becomes more accessible and students become more productive learners. [32]

With the rise in popularity in these strategies contentious research such as that conducted by Kavale and Forness dismiss claims of using learning strategies as an effective teaching model by studying the results of this modality style teaching. Their study found that the success of pairing students with preferred learning and teaching styles was small and the success of the teaching that followed had "little influence on outcome as evidenced by its non-significant correlation." [33]

Other research that refutes claims of the effectiveness of learning style inventories such as a 2010 article by Perry D. Klein seeks to invalidate not only the work of Dunn and Dunn but that of Multiple Intelligences theorist Howard Gardner as well as other less known creators of inventories and teaching models of this kind. Klein argues that it is less effective to teach students using a single process; be it visual, auditory or otherwise, than it is to teach students in a way that includes them all. [34] He gives an example:

Another reason that curricular activities cannot be categorized by modality is that many and perhaps most kinds of knowledge appear to involve representations of more than one modality. I recently heard an LS advocate claim that verbal students 'understand' the Pythagorean theorem as the sentence 'The square on the hypotenuse is equal to the sum of the square on the other two sides', whereas visual students 'understand' it as a diagram of a triangle, with three, four or five hatchmarks on each side. Neither of these claims adequately represents the theorem. The verbal representation alone is meaningless. What is a 'hypotenuse?' And what is the 'square on' a side? Conversely, the diagram by itself is equally meaningless. Does it represent all triangles, all right triangles or all scalene triangles? And do the hatchmarks stand for any series of consecutive numbers, any set of numbers in a 3:4:5 ratio, or something else? [35]

Klein clearly disagrees with the use of learning styles to guide teaching, feeling instead that theories dealing with cognitive load and dual-coding that emphasize using multiple modalities in order to not overwhelm cognition are more helpful for learners. He also writes about the need for teachers to create work in which students must use multiple learning styles in which to complete. [36] This to me illustrates a supplement of less preferred learning styles or those affected by a learning disability by one or more alternative learning styles or modalities.

In light of all this information I am torn in my thoughts of how effective a learning style inventory would be for my students. My intent was never to use the inventory to inform the way I taught students, but as a gateway to possible conversations about learning styles and strategies that special education students use to bypass things that are difficult. To this end I feel that a learning styles inventory should be used in this unit, however, a discussion about the usefulness and effectiveness of such a document in certain practices should also be employed.

In selecting a learning style inventory for use, I feel that an inventory that encompasses not only learning style preference, but preferred learning environments as well is essential. It is important, specifically in the face of their college experiences looming over the horizon, that students know and understand where and how they are able to learn best. Learning about how much space they need, preferred lighting, sound, possible distractions, and many other factors that effect a student's learning as well as how and where they can seek out or create such a space will be helpful for their academic careers.

Strategies

Family Mustelidae

As my students and I discuss possible strategies and study skills throughout this unit it is important that I give them examples to fuel their creativity towards the conception of tactics and skills that work best for them; strategies that help to circumvent struggles rooted in their particular learning disability. One of my favorite ways to learn and to teach is through association and analogy. Relating complex information to students through concepts with which they are familiar is an effective way in which I have historically been able to aid in their understanding of complicated or confusing information.

One of the most important points I want to drive home in this unit is for students to realize that they have both strengths and deficits and in order to learn most effectively they should strive to exploit their strengths; self-determination skills that Ward and Koehler list as the ability to "evaluate their skills, and recognize their limits." [37] To illustrate this point to students an exercise in association is in order.

I have always loved animals, so I enjoy using them for analogies. In searching for a group of animals to use I discovered that the Mustelidae family, more commonly referred to as the weasel family would suit my needs quite nicely. The plan is to associate the various ways a student can learn something with the variety of ways three members of the Mustelidae family are able to feed themselves. All of the students in my class have brains, though they each work very differently and must be applied in various ways to attain their goal of learning; just as the three members of the Mustelidae family all have claws and teeth with which to eat, however go about using those attributes in very different ways in order to feed themselves, always capitalizing on and exploiting their strengths.

Enhydra lutris – The Sea Otter

Sea otters are the heaviest members of the weasel family weighing between 30 and 100 lbs. They can be found on the northern and eastern coasts of the North Pacific Ocean. This otter is a marine mammal and because of the form of its body and thickness of its fur, webbed hind paws, large lung capacity and sensitive whiskers it is well suited for life in the cold ocean. The sea otter does all of its hunting in the water, preying on sea urchins, abalone, mussels, clams, crabs, snails and a variety of other sea life. Sea otters are able to use their paws, which have a tough pad on them to grip slippery prey as well as rocks. Sea otters use these rocks to smash open shellfish for the meat inside. The sea otter would have an incredibly difficult time catching prey on land, as its spine, legs and tail have evolved for swimming. [38]

Taxidea taxus – The American Badger

The badger has a compact and muscular body with short and powerful legs. Badgers have incredibly large fore claws, up to five cm in length, and are able to exploit this trait, along with its body shape to hunt for prey. The American badger's diet consists mainly of small rodents and other small animals that live in burrows. The badger exploits its powerful legs and long fore-claws to burrow into the homes of prey to pursue them. Some badgers, like the sea otter, use rocks in pursuit of a meal. They use rocks to plug up tunnel entrances trapping their prey while they enter the den from a different tunnel. Like their cousins the otters, these members of the weasel family efficiently use their attributes to navigate their environment and attain the goal of feeding themselves. [39]

Martes martes – The European Pine Marten

This member of the Mustelidae family most closely resembles what one thinks of as a weasel out of our three selected members of the family. Weighing in at around three pounds the pine marten's semi retractable claws help it to the arboreal life of running around in the tree tops. They use this attribute along with their long bushy tail to help keep their balance while they hunt smaller tree mammals like squirrels as well as small birds and frogs. Pine martens will also eat insects, berries and bird eggs. [40]

You would be hard pressed to get these animals to hunt in the same way as each other. I can't imagine a sea otter being expected to hunt grey squirrels in the tree tops or badgers asked to dive to the ocean floor to grab some abalone then smashing them open even though they use rocks to aid in their own capture of prey.

If smashing shellfish with rocks is a student's ability to synthesize reading, they should recognize and acknowledge it, take pride in it, and use it to their advantage. Exploit it. If one of this student's classmates were asked to do it the exact same way, their peers web-less and smooth padded paws may have more difficulty. Quick and accurate mental math could be a student's five cm long burrowing claws; she should be recognize this strength when she uses it to trap large equations and go for the jugular.

I recognize that this is not a perfect analogy, but it can be used as another beneficial tool in helping students understand that they aren't all the same and the way they are asked to learn within the constraints of our current educational setup may be more difficult for them than others that have different strengths and deficits. One of the main points I want students to take from this unit is pride in their individuality, and in the school setting their strengths, deficits and learning disabilities are part of who they are. I want this unit to be used to help students fortify themselves with strategies to overcome these things and continue the march towards self-dependence.

Student Questioning and the Right Question Institute

The overarching theme of this unit has to do with student questioning; the majority of this questioning aimed at the students themselves and their disabilities. As they ask and answer these questions about themselves my hope is that through this self-knowledge they will begin to become self-determined learners and both advocate for their needs as well as participate and ask questions in class.

To help students learn to ask questions more readily and effectively I looked to a group called the Right Questions Institute, who operate out of Harvard. This group of teachers worked for years putting together a protocol for student questioning. This protocol stimulates student questioning by simultaneously forcing students to brainstorm any question they can think of without fear of being answered or disputed with learning about what the difference is between an open-ended and closed-ended questions and in what situations they are best put to use. With all of the self-discovery that will be happening, my thought is that this

protocol will assist students in asking questions they may be too timid to ask otherwise. This set protocol will also serve as a useful learning strategy for students to use when they are stuck in a writing project or need to brainstorm for something. The protocol is as follows:

1. Question Formulation Technique

Produce Your Questions

Four essential rules for producing your own questions:

• Ask as many questions as you can.

• Do not stop to discuss, judge, or answer the questions.

• Write down every question exactly as it is stated.

• Change any statement into a question.

Improve Your Questions

• Categorize the questions as closed- or open-ended.

• Name the advantages and disadvantages of each type of question.

• Change questions from one type to another.

Prioritize the Questions

• Choose your three most important questions.

• Why did you choose these three as the most important?

Next Steps

• How are you going to use your questions? [41]

My choice in using this technique is a calculated one. When faced with students who don't ask questions about themselves, and because of this lack of self-knowledge have a hard time speaking up in class or asking questions in class I need to look towards a solution. My need, as a teacher of these students, is a way in which to assist students in practicing this questioning until it becomes second nature. The goal of the question formulation technique as written by Rothstein and Santana is for students to "think more deeply about their questions, refine them, and prioritize their use." [42]

Classroom Activities

It is difficult to know where to start when thinking about introducing students to the idea of self-determination. Upon contemplating which strategy would present the information students need in a logical order, I came across a model for self-determination as devised by Field and Hoffman. They created this model, which leads students toward self-determination, by gathering useful lessons and units over a three year period. They then synthesized this research to create a model of how self-determination is achieved. They found that the

process begins with students learning to know and value themselves. Using the skills they gain during this first step, students begin a planning phase, followed by student action based upon this plan. The last step is a synthesis of the outcome; asking students to learn from their experiences and use this information to circle back and begin the process all over again. The thought is that each time students complete the cycle they will better know themselves, their strengths, struggles, preferences and accept and value these traits. [43]

Introduction Lesson

With this format in mind I think it is of the utmost importance to start from the beginning. I envision the first lesson being an exercise in the exploration of their disabilities, reading material that students very likely have little to no knowledge of. Using the Question Formulation Technique teachers should write a prompt on the board. It should be neither too vague nor too specific. It may take multiple trials to come up with a prompt that elicits the responses and reactions teachers are hoping for. The prompt I plan to use is: "Every student in the room has a learning disability." Students will then be asked to follow the protocol for asking questions about the prompt. This should happen in groups of any size the teacher chooses; my students will complete it in groups of three.

After this questioning session the teacher will introduce an activity to the students. This activity will involve creating small sculptures out of Sculpey; a colorful, malleable, and bakeable clay. Students will be asked to use this clay to create a small totem like sculpture that represents their disability and what they and others think about it. While students are modeling the teacher will facilitate a discussion about student disabilities based on the questions asked in the previous exercise.

This will be an informal question and answer, letting the students drive the conversation towards topics within the educational disability realm with which they are most curious. Students will be encouraged to weigh in and answer the questions of their peers when they have personal knowledge of the topic in question. The teacher will have information about each disability on hand with which to disseminate to students upon their request. These information sheets will have basic information about the disabilities, how they function, possible causes, effects, and effective strategies.

When students have created their small sculpture the teacher will write the word "disability" on the board. A discussion about the word disability will commence. I personally plan to break the word down and talk about how the broken down parts of the word make it sound like the inability or lack of ability to do something; in the case of my students, it is an inability to learn. The teacher should then inquire whether any of the students have learned in the past or are currently able to learn things. When the students confirm that they are in fact able to learn they will be prompted to think of a more suitable term the class can use to refer to their struggles.

When a suitable and appropriate term is agreed upon the students will be prompted by the teacher to destroy their "disabled" totem sculpture. They can throw it against the wall, stomp on it, tear it up or whatever they want. This was a representation of them as someone with a disability; someone unable to learn, who didn't have control over their education. Students can use this destruction to let out some of the frustration they feel towards their disability as well as the judgment that may be passed upon them by others. Please do require students to keep all the pieces of this sculpture and not get too carried away with the destruction.

From this point on teachers will refer to learning disabilities as whatever that class deemed a suitable replacement. The hope is to lead students towards something that has more hope than the word disability, something that represents the positive aspects of a struggle. After discussing what this looks like and what

this means to them as students with this struggle ask students to reform their totem sculpture out of the ruins of their disability, but have it now represent this new term and their new outlook on how to progress.

I envision, in the case of my students, attaching a small screw with an eye-hole in the tops of these sculptures and tying a string through the eye-hole. I then plan to hang some sort of netting from the ceiling in the corner of the room over my desk and after the sculptures have been baked and harden, here they will all hang. We will discuss as a class that these will stay in the classroom until students graduate, but that they can be borrowed and used by students when they are going through stressful or anxious times such as an IEP meeting or big test. The idea is that these will represent strength through struggle and that students will use them as a reminder of who they are. As students advance in their self-dependence this sculpture will too evolve and advance their perception of themselves.

Weasels!

Staying in this vein of self-discovery I feel that more exploration into student attributes and skills is a very important step. It is important not only for students to recognize these attributes and skills but to understand how they relate to their struggles and how they can use them to compensate for things that are more difficult. In short, how they can exploit their strengths to make their educational lives easier.

To explore and illustrate this concept I plan to make a connection between these strengths and deficits, and the strengths and deficits of other creatures. This lesson will begin like the others; with a prompt. Teachers again have creative reign over this decision and my prompt will more than likely evolve as I have practice with the question protocol. My prompt will be: "Sea otters, badgers, and pine marten all use their claws and teeth to catch and eat prey." My hope is that this will elicit questions about the difference between the ways in which these animals go about using their claws and teeth to eat.

In groups of three students will use a computer to look up the similarities and differences between the ways that these creatures use these fangs and these claws to catch and eat their prey. This information will be written into a graphic organizer with three intersecting circles. Students should be given a time limit; I plan to give my students 15 to 20 minutes. As a class students will then share out what they found. When this portion of the lesson is over, students will be asked about the strategies they use when learning and if the people in their group all learn the same way and employ the same strategies. After a discussion students will be prompted to use another graphic organizer with the three names of the group members in place of the three animals. Instead of comparing hunting techniques however, students will compare learning techniques.

Students will be given another 15 to 20 minutes to complete this new graphic organizer. After the time is up students and teacher will all come back together and share their findings. When students have shared their findings and discoveries they will each be given a skill inventory or "toolkit" graphic organizer that will stay in the classroom in their personal folders. On the graphic organizers the students will be prompted to write a few of the strategies they discovered which will represent the first "tools" in these personal attribute/skill inventories that will serve as a reminder to them that they have skills which can be put to use and even exploited.

Wogs!

As an exciting extension of the aforementioned activity; one that I hope will really drive the point home: students will be constructing creatures called Wogs that will have to perform a variety of tasks.

The lesson will again begin with a prompt: "Every thing has attributes and we can compare those attributes to predict which thing will be better at a task." Again, this prompt is malleable. After students have gone through the protocol we will discuss their findings. The teacher will pose questions to students about whether they can predict who will be more successful in school based on the way students study and learn. Questions about all types of competition can also be used. What attributes make the best basketball player? The best pilot?

After this discussion the teacher will introduce students to the Wog. The Wog is a creature that has to do a variety of tasks but has not been made yet. Students will divide into groups of two or three. For each group there will be a bag containing the components of a Wog. Each student group will select a bag of Wog parts. After making their selection they will be able to take out the components and survey them. After discussing their initial thoughts and questions, the first Wog task will be revealed: a race down a ramp.

Wogs can be made up of anything you have around, although each piece you put in a kit must also be in the others, it must also differ in some way, such as size or shape. For example if you put the cardboard tube from a roll of toilet paper in one set then you must put a portion of a cardboard tube in another and a paper towel tube in yet another. This will illustrate that like the animals we looked at previously, which all had claws, though they looked different and were used in different ways, so to do all Wogs have differing cardboard paper-rolls. Teachers must also come up with a fixed amount of whatever fastening agent they plan to use, whether it be glue or tape or staples, each group must have the same amount.

Now that students know what their Wogs will be doing, teachers should invite them to look at the other teams' Wog parts for a few minutes. Next, the teacher will pose questions to students about which Wog they think will likely win and why. Students should be asked which parts they feel will be the best attributes for this task, and any other questions that will promote their thinking of how attributes are exploited to complete a task. Students will then be given a significant portion of the class period to construct their Wog, but will be given a strict end time.

When students have completed their Wogs and the time is up, the race shall commence. It can be a single race or the best of a certain number of races. After the race(s) student will be asked to come back and share-out what they saw. Specific emphasis should be placed upon whether their predictions were correct about which Wog they thought would win. My hypothesis (and hope) is that many of their guesses will be wrong, and the initial "good" parts made much less difference in the winning than the exploit of certain parts used in a creative way. The connection between these attributes and the ones they mentioned earlier about what styles and attributes make up the ideal learner should be compared.

This lesson is another attempt to help students realize that they have many attributes in which they can exploit to overcome their deficits and become the learners they want to be. This lesson could be extended and students could use the same bag of parts to see who can create a Wog that can hold the most cargo while floating in water, or a Wog that has been saddled with transporting the last of a species (an egg) from outer space to earth and must protect the baby species when landing (being dropped from increasing heights). Whatever fun activity is chosen the emphasis should be put on the examination of perceived attributes and short-comings of these Wogs and the eventual outcome of whatever contest is decided upon.

There will no doubt be many specific questions about certain aspects of learning disabilities, and more time can be devoted to the exploration of each disability. There are wonderful books for students of all ages, both fictional and non-fictional that explore the lives of young people with learning disabilities. Other activities that will help to foster this journey are goal setting activities, learning style inventories and guest speakers who have become successful in spite of their disability. There are many things a teacher can do to help students

with disabilities on the road towards realizing self-determination and having an open dialogue throughout the process is essential.

Appendix

This unit will touch on a variety of the ELA common core grades 9-12 standards for California in the categories of:

Speaking and listening standards for grades 9-12

Reading for informational texts for grades 9-12

Language standards for grades 9-12

It will also include California state science standards:

Investigation and experimentation standards for grades 9-12

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