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**Motivating Students with Learning Disabilities to Achieve Through the Use of Authentic  
Projects and Technology**

A Thesis Presented

by

**Meagan King**

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We, the thesis committee for the above candidate for the  
Master of Arts degree, hereby recommend  
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Abstract of the Thesis

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The purpose of this thesis is to evaluate effective methods that help students with learning disabilities achieve better quality writing. The types of methods that were reviewed were authentic writing projects, process writing, and peer work through the analysis of scholarly and personal research. Using technology to enhance understanding was also evaluated in relation to these methods. The study concluded that these effective methods increase student motivation because of their applicability to the real world. The study also concluded that as a result of the motivation produced by authentic writing projects, students develop more confidence in themselves as writers and better writing skills that they can use after they leave the academic setting.

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## **List of Abbreviations**

LD	Learning disability
LDAA	The Learning Disabilities Association of America

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As teachers, we do everything in our power to give our students all of the necessary foundational tools they need to succeed not only in the classroom, but also in life. Especially towards the latter years of an adolescent's education, motivation can decrease. It is our responsibility as teachers at a secondary level to inspire students' intrinsic motivation and to help them build the analytical, deep thinking skills that they will need to be successful in the real world. Helping students with learning disabilities (LD) build basic proficiency in reading and writing will assist them to function as contributing members of society after they leave their educational career. This can be an incredibly challenging task for teachers because there is information on students with learning disabilities, authentic projects, and on motivation but little on the connection between how all three of these concepts work in synchronization to help students with learning disabilities best achieve.

Generally, authentic writing is considered rhetoric that is created for a real audience with a genuine purpose to communicate a message. For example, if someone were to purchase a product from an online company, they could write up a review on the company's website in order to inform others in detail of how they did or did not find the product useful. Because they chose to write this review by their own free will in order to inform others, their writing would be considered authentic. However, as we consider how authentic writing is implemented in a classroom, what defines a lesson or project as authentic depends on the researcher. An authentic writing project is often identified as a rhetorical situation that requires a multi-step writing process to complete a larger, more structured, and sophisticated piece of work that is shared with an audience. Authentic writing projects are written to a real audience, are inspired by real-life experiences that are important to a student, are a specific genre through which the topic is structured, and use a publication through which others can read and/or respond to their piece. For



example, students that live in an inner city area who are reading a non-fiction novel about the water crisis in Africa may feel particularly inspired to do something to help other children have clean water. Because they have felt a personal connection to struggles of basic resources and are motivated by the real life experiences of the author, a teacher may construct a writing project in which students create a persuasive letter to their principal where they seek to fundraise money to bring a clean water well to a village. It becomes a snowball effect in the classroom when students read and connect to the human condition and as a result, feel inspired enough to write to produce a change for themselves or others.

This thesis will focus on promoting practices in the classroom that foster motivation through the use of authentic lessons and projects, analyze problems and shortcomings of the processes of teaching literacy, and consider mediums of technology, which not only inspire authentic learning in students but also aid in their ability to achieve quality writing. Authentic writing projects not only help students academically but also motivate them to achieve and build their confidence as those who are capable.

If we know that students with learning disabilities have difficulties activating these different methods of understanding, then we must begin to broaden our use of techniques to help them get there. Authentic tasks that take place during a class period can do just that. Catherine Cobb Morocco, a senior scientist at the Education Development Center, considers the qualifications of what makes a task authentic differently than other researchers. She identifies a task as authentic if it aids in the understanding of classroom material through the following three traits. The first trait is in students “constructing” knowledge based on what they already know as opposed to non-authentic teaching where information is constructed for them. This means that a teacher does not select, organize, and spoon feed information to students but rather facilitates a

student lead investigation where they use sources to discover information to build on what they already know (Cobb Morocco 7). The major difference is in the role of the teacher who goes from an information giver to someone who steps back and ensures that students are being active in learning and helps clarify or better these types of more independent practices. The second characteristic of an authentic task, according to Cobb Morocco, is “implementing alternative modalities” to facilitate the understanding of materials. Especially for students with learning disabilities, it is imperative that teachers stay away from simply textbook teaching and use media such as videos, graphic organizers, and other sensory “observations in addition to print” to help engage as many different parts of the brain in the learning process as possible (Cobb Morocco 7). In incorporating those modalities for students with learning disabilities, it is strengthening the parts of their brains that process information more efficiently and also motivates them to work at building their ways of learning that struggle with comprehension. Better comprehension will happen as a result of also incorporating the third trait of an authentic task, which is for a teacher to show students the lesson’s value outside of the classroom as a result of their construction of knowledge (Cobb Morocco 7). An example of this value outside of the classroom would be in a teacher using a cooking lesson to show the use of fractions in the real world. In measuring items needed to bake a cake, students will see how using fractions incorrectly will affect the overall quality of their baked goods. Overall, projects that are authentic in nature differ from non-authentic teaching methodologies because of their “level of engagement, curiosity, and motivational factors” (Boyd-Batstone, 230). These factors help teachers understand the overlooked yet incredibly important factors that affect the learning process.

In implementing authentic projects in the classroom, educators are seeing the positive effects of when they stop following the conventional forms of teaching reading and writing and

start to build students' abilities through activities that mean something to them personally. Heidi Hallman, a teacher educator and professor at the University of Kansas, summarizes Mikhail Bakhtin's concept of "dialogic writing" by explaining that writing is primarily done as a result of influence by another piece of writing. She also notes Bakhtin in his belief that writing is a tool to produce "action" or "meaning" from other language. The theory of dialogism, according to Hallman, is what better helps one identify writing as authentic (44). In an example of dialogic writing, Hallman describes a situation in which students who were placed in an alternative school due to difficult life issues such as teen pregnancy were featured in a local paper for being a drain on society. The students' outrage at the article's generalizing claim that young mothers cannot succeed if they do not leave the educational world and join the workforce warranted a teachable moment in authentic writing (Hallman 43-44). In being taught how to write a response that was diplomatic and well structured, the students not only produced a quality writing piece that was professional and poised, but also learned an important life skill on how to advocate for themselves through their writing (Hallman 47).

## **Building Motivation**

Unintentionally, teaching styles over centuries have taught students that the purpose of writing was to receive good marks, but more contemporary scholars realize that the most creative and original pieces they have ever received were created by students who truly cared about what they were writing, not about what grade they would receive just to pass a class. Just as English language learners learn to speak by participating in real and relevant oral discussions to strengthen their everyday vocabulary, our students must use real-world and relevant writing in order to build their unique writer's voice that is so very different from their spoken voice. In order to achieve this, teachers must create activities in order to evoke an emotional response or have a particular "purpose or meaning" so students are able to function in the real world after school (Hallman 45). Especially for students with learning disabilities who struggle with foundational writing skills, motivating interest by assigning topics that help them personally are much more effective than assigning writing for the sole purpose of making them learn to write better. The authentic style teaching method, if done correctly, can create a classroom which functions as a motivated cycle of achievement. By motivating students' interest, making learning relevant to their lives, and showing them how essential writing is for survival in the real world, they will find purpose in learning organically. The process will therefore repeat itself all over again as they continue through the following stages of the writing task. Teachers can confirm that their lessons are authentic in nature if they meet the criteria of having: "construction of knowledge, disciplined inquiry, and value beyond school" (Newman Marks Gamoran 282). This means that lessons are delivered in a scaffolded manner to evoke interest in a structured way, and teach students values that can be transferred to real life experiences past the academic classroom. Scaffolding is the method of introducing and modeling a new concept, beginning with heavier

teacher support. Then, as students become more comfortable in the concept, the teacher takes that support away little by little until they can achieve the new concept independently. While non-authentic style teaching methods such as direct instruction can be scaffolded, the authentic style of teaching allows students to be in the driver's seat to knowledge because they are in charge of discovering new information and, as a result, want to understand more about their topic. The teacher is not handing them all the materials or steps they need next in order to receive a grade. Instead, the teacher just guides students in the right direction and the steps come as a natural result necessary to proceed with the writing process. The scaffolding process in authentic writing projects is more efficient because of the cycle of achievement instilled in these types of activities. As opposed to a one size fits all writing process, which may require the whole class to complete the same stages at the same time, scaffolding in an authentic writing project also allows for more of an individualized prioritization of necessary writing processes because of the interconnectivity between stages. Without even realizing it until well into the drafts, students begin to discover what method of inquiry works best for them to understand information and this happens more organically because they are so invested in the topic.

More and more information is beginning to surface that helps educators to increase student motivation and produce higher quality work through the implementation of authentic-based assignments. Developing a positive association with the classroom in multiple content areas, not just in English, is a large battle in working with students with disabilities. In fact, Jesus Nicasio Garcia and Ana Maria de Caso who are professors of Psychology at Leon University in Spain, explain that motivation is directly affected by both "intellect and personality" (141). This means that it is not just intelligence that affects what a student can achieve. Personality, self-esteem, and external factors all also influence a student's achievements in the classroom.

Ultimately, developing oral and written language in students with learning disabilities will allow for the production of higher-quality writing for all types of students and build their confidence in the process. Garcia and de Caso conducted a student psychology study where they tested over one hundred students in all ranges of abilities in all different classroom styles of teaching literacy. Positive feelings towards writing increased across the board as a result of teachers who used motivational authentic projects that stressed the purposeful outcome of student writing (Garcia, de Caso 155). This consistency in student improvement was a direct result of the researchers using motivational factors as well as a purpose and student choice in every lesson. The researchers incorporated motivational techniques such as answering how the lessons were useful for writing outside of the classroom, using self-esteem building activities in almost every lesson, and using praise in relation to effort and achievement. They incorporated authentic writing building by using activities based on the lessons such as letter writing and questionnaires, which the students knew would reach real readers (Garcia de Caso 145). Their research also concluded that student and teacher attitude alone does not allow students to necessarily achieve. The interdependence between attitude and a teaching style that builds necessary ability aligned writing skills with realistic expectations are the building blocks necessary to help students achieve academic literacy (Garcia de Caso 155-156).

## **Implementing Authenticity**

When we communicate, the ultimate goal is for a message we send to be received. Just as we speak to communicate meaning and evoke a response from a receiver, it is also true that we do the same with writing. Deborah Dean, a professor at Brigham University, emphasizes that when we write, our intention is to “express ourselves” for the purpose of others to care about what we have to say as much as we do. Dean explains that when we become aware of audience and realize that others can be impacted by our words, we are more likely to mold our language to convey the clearest message possible for them. Similarly in the classroom, Dean argues that students are willing to put more effort into their writing and take more risks if the benefits produce something positive for someone other than their teacher (42). Such activities can include (but are not limited to) writing for social or political change, letter writing, formal email writing, resume building, informational writing to various interest-specific organizations, or blogging.

In Deborah Dean’s “letter to the editor” authentic writing project, she identifies and models the process of what makes an authentic project so effective. In the introduction of a writing activity, many students shudder at the idea of writing for an audience who would potentially see them look “less intelligent” than their classmates. They have such anxiety that their writing difficulties will ruin their images to their classmates that they instantly shut down when introduced to the activity. It isn’t until they learn that they will be writing to teach others and get feedback on a topic of their choice that their attitudes slowly begin to change. Dean and her students begin the project by analyzing samples of editorial writing such as “sports articles, feature articles, and straight news articles.” More specifically, they identify the textual features or characteristics that make up the language of these specific types of pieces such as word choice or sentence structure (42). While her students are reading articles they are interested in, they are

also paying attention more closely to characteristics such as words or phrases that are specific to this genre of writing because the article already has their attention. Dean's ultimate goal of identifying the genre using samples is for students to understand the context or meaning for which these articles are produced. The second phase of her authentic writing process is to allow her students the freedom of independently following news stories that genuinely interest them over an extended time. Because these topics are of interest to them, Dean's students do more than just a surface reading of their followed topic and the researching of their chosen topic becomes a personal experience, which they choose to do out of sheer sparked curiosity. Dean explains that she does this so that students make a meaningful connection to reading that is not negatively influenced by the word assignment (42). The fact that they are able to have the freedom to seek out what is interesting to them rather than being given a prompt that had no connection to them personally makes all the difference in the world to their level of achievement and is what makes this project so authentic. It is after the motivation or interest is sparked that she can begin to analyze deeper content such as the theme and "ideas of writing" (Dean 43). Dean moves on to how authors generate ideas and why they choose to include or exclude possible aspects of each topic by looking at features such as what kind of audience the piece reaches and what motivation the author has for writing. By starting with a general genre followed by analyzing surface features of a text such as word choice, and then continuing with looking at deeper themes and purposes, she is scaffolding the higher-order thinking process to help students build their ideas in a structured way (Dean 43). This is an effective method because it takes the pressure off of the goal and focuses on the process of writing, one step at a time. Dean structures the process in this way because she says that many teachers assume that their students have the foundations to write and a natural motivation by the time they get to the secondary level, but this



is not always the case. She argues that by scaffolding this process, we are ensuring that all, including the students who may have never been exposed to basic writing techniques, are fairly receiving the same skill building and inspiration for intrinsic motivation whether students are advanced or learning disabled (Dean 43).

After the foundation building, Dean begins the actual assignment by using sample letters to the editor to identify with the students what makes a good letter, and just as importantly, what makes a letter poorly written (43). This part of the procedure allows for students to be a part of the evaluation process and demonstrate to the teacher what they do or do not grasp from the previous step of analyzing writing features and eventually clearly understand criteria expectations when it comes to their own writing later on because of those samples. Her students then rate all of the sample letters based on what they have learned makes a constructive or poor letter and compare opinions with their peers (Dean 43). In working with their peers, students are building communication skills they may not otherwise be able to articulate in writing. It also begins the brainstorming process and allows students to react to all subject matter that makes their experiences so important to them. P.L. Thomas, a professor at Furman University who specializes in English education, refers to this brainstorming as the fundamental beginning of the “journey” a writer must take as they develop complex piece of writing (66). Dean’s class then develops criteria for letters to the editor based on their responses from peer discussions (43). It is in this activity that a classroom community is fostered and students feel like they are a part of the analysis and solution, not just an observer. From this point, Dean’s students use their topic of interest that they had previously chosen to follow and respond to it. They also choose from a list of local newspaper companies, but most importantly are encouraged to choose topics that connect to their personal experience (Dean 43). To hold to the format of editorial writing,

Dean's students are encouraged to research their topic to strengthen their argument and use relevant, straightforward supporting details as newspapers do just as they analyzed in the sample articles. Although further research is important, Dean emphasizes the importance of including personal experience and opinion to keep students personally connected to their writing (43). In having a choice in their topic, students know that no one in the class will have a letter quite like theirs so there is no measurement of comparison. For students with a learning disability, this takes the pressure off and allows learning to be interesting in the process.

Throughout this entire writing exercise, Dean guides her students to peer review on two separate occasions (43). "Peer reviewing" is explained by author Nelson Graff as a conversation between two classmates that uses constructive feedback sentence starters such as, "I think your saying..." or "her main argument is" and aims to understand a piece and work through ideas as opposed to "fixing" papers (81-82). The first peer review done by the partners is on "content, language and organization", which is considered by Dean to be the most important priority in beginning stage drafts to help build a more complex text that meets the criteria of the genre (44). This first peer review is so different from other, non-authentic writing pedagogies, which can be focused more on fixing surface errors, because Dean's class is not initially concerned about grammar or spelling. The boys and girls know that they will have time to go back to that in a later draft. Instead, they focus primarily on their purpose. Words and ideas usually muddled by the stress of how to spell words or figuring out where to start writing become more clearly expressed full sentences.

Students with disabilities can improve their social skills with peer sharing exercises, which allow them to build meaning and develop their use of oral language (Graff 86). If students with LDs in my own class struggle with verbalizing their thoughts, they can utilize the

accommodation of drawing an image based on their partner's writing. When their partner, the author of the writing piece, helps their peer color in the parts of the image that are unclear or missing, then the author knows what they have to rhetorically explain more to fill in those gaps of written imagery. For example, if a student were writing about the struggles of being a teenage mother and daily responsibilities that are often overlooked, their partner who may struggle with verbalizing what they do or do not understand would instead draw a simplistic picture trying to portray the image their partner created in writing about the daily difficulties. They would then talk about the image and in a different colored pen, the author would add to the drawing. Those additions that help make a more complete picture are the details that are lacking from the writing piece. This alternative peer brainstorming still allows the partner who had difficulty communicating what the author was missing to make a useful contribution to his or her partner's writing process. Allowing this type of alternative peer work causes students to feel compelled to have their audience understand what they are trying to say as much as they do. It is also a multi-modal strategy that assists all types of learners to understand as clearly as possible. Nelson Graff, a California State University writing professor, explains that peer reviewing strategies allow students to become more specific writers through "sentence starters" which guide them to the developed thoughts they may otherwise have trouble articulating (82). Keri Franklin, director of the Ozarks Writing Program and a professor at Missouri State University, highlights the emphasis on creating supportive listeners in the classroom conferences as opposed to judges (82). The practice of just listening and appreciating others' work builds a trust between students so they feel comfortable enough to take risks and develop their written and oral skills in the process (Franklin 82).

In the second peer review which is done with a different classmate, Deborah Dean and her students discuss more surface grammar, punctuation, and spelling issues which fine tune the overall piece (Dean 44). The editing process, explained by Nelson Graff, should be more of a process of the collaborative building of writing, not simply “fixing” others’ works. Graff and Dean emphasize how important it is to do editing at the end of the writing process because students are aware of all of the “fixing” that has been done in earlier stage drafts but Graff believes that students should be focused more on content such as word choice or rephrasing ideas as opposed to focusing on the surface errors that Dean does (81-83). Dean notes that if all of the earlier stages of the drafting process are implemented properly, the editing process, which focuses on spelling, grammar, and syntactical errors should be less drawn out towards the end and more constructive than it is painful for students. At this point in peer sharing, she begins to observe the small problems that many students have in common. With this data, she is able to create mini-lessons that both connect to the lesson and help all students in the future with specific grammar issues. In grammar mini lessons that would otherwise seem boring and unnecessary, students pay more attention to how to write because of the fact that someone other than their teacher will possibly see their work. Students recognize that their writing could be a piece of value to others and their proper writing only strengthens their credibility to convey that value (Dean 44).

Jay Simmons, a professor at the University of Massachusetts Lowell, emphasizes the student mentality that “anything heard from a peer will be more effective than that which comes from a teacher”(qtd. in Franklin 80). In having students comment on specific textual features of their partner’s story, there was a positive discussion established that had more of a positive effect on the students than, as Keri Franklin says, anything an adult in the room could have said (80).

The best part of this process, if done correctly, is that students will remember specific details as to why their work is done well. The exercise goes from a dreadful experience to one where students want to have another workshop because their writing produced a positive response by others. Franklin argues that building a rapport and trust between the students of your class is necessary to help them feel more comfortable in how respond to each other (79). By the time students with learning disabilities get to middle school, they have already been dealing with the awareness that they do not match up to their classmates because of their abilities for years. Students need to feel that when they are entering a classroom that it is a place of safety, trust, and no judgment. For some students, that environment fostered in the classroom may be the only place they feel that safety. As an educator, it is essential that we also comment and give facial features of approval and acceptance because if students feel accepted as writers, they will be more willing to put their work out there (Franklin 80). Having students work with their peers can allow for one of the most consistent and successful transfers of knowledge possible if modeled and monitored appropriately.

After Dean's students complete the letter writing process and she does the final proofing, she mails out their work to their intended source if they choose to send it. One of the most important things Dean recounts from this writing process is that her students' writing began to show in the local media which showed students in no clearer way that not only are they capable of publish worthy writing but that the words they say do have merit. Because her students' work began to be published, they began to read the paper daily to check for their letters and continued to follow stories like their own, which extends the purpose of the lesson past its completion and is ultimately the goal of the project which is to make them better writers that are personally invested in their writing. It is important to note that Dean does not put a grade on whether or not

a student chooses to publish their editorial because by assigning a grade to publishing, the overall project becomes about the grade as opposed to writing for growth or change (Dean 44).

Dean's classroom example proves an important point about students with special needs. Patricia Dunn, a professor of English, English education, and disability studies at Stony Brook University, challenges us to look for more inclusive strategies that make learning more accessible for all and as a result allow achievement among students with learning disabilities to become a normal standard (14). Authentic projects allow students who are what society considers learning disabled the ability to strengthen their skills, the opportunity to gain control over their weak skills, and build confidence in themselves as writers who are equals to their classmates. Adolescents in secondary education, according to Dean, are so close to adulthood yet for the most part are rendered powerless by the world around them. This is especially true for students with learning disabilities who have grown up so accustomed to the word no or can't that it seems like an impossible thing to have their voices taken seriously. Writing, according to Dean, or more specifically authentic writing, can be used as a tool to take back "some power" that society often takes away from these students (42).

## **Learning Disabilities and Technology**

Teachers must be able to identify signs of diagnosed and undiagnosed learning disabilities in order to build appropriate authentic projects that help bridge the gap of achievement that these learners often face. What we need to do in order to help students find their voice and confidence is help build how they respond to language through alternative oral, kinesthetic, and written strategies. In understanding the different types of learning disabilities and their characteristics, we can create a classroom and lessons that build the strengths of all of our types of learners and help them love learning rather than fear it. It is necessary to implement these different strategies because so many students, not just those with learning disabilities, benefit from learning styles that engage as many senses and cognitive abilities as possible. The Learning Disabilities Association of America (LDAA), which is one of the leading organizations responsible for providing up to date and accurate information to the general public about disabilities, points out that although students with learning disabilities struggle with how they process new information, it is important to note that those with learning disabilities are generally of “average or above average intelligence” because there is a “gap between the individual’s potential and their actual achievement” (2). This means that when a lesson is approached in the right way, learning can be achieved because students are capable of understanding. Learning disabilities are often referred to as an invisible disability because unlike other disabilities, which may be noticeable to others early on, those with learning disabilities may seem otherwise identical in personality and “intelligence” to their peers but in actuality they cannot “demonstrate the same skills level” when compared with others (LDAA 2). This information tells us that those who struggle with learning do not do so because they are incapable but because we are not relaying information in the way that they need in order to understand. The LDAA also stresses

that one of the most troubling things about those with learning disabilities is that this difficulty extends far beyond the classroom, affecting the way an LD individual has successful relationships with loved ones and successful careers (2). It is our job as educators to ensure that we help foster relationships that are statistically stacked against students with learning disabilities so they can be successful in the workforce and create meaningful relationships because of their confidence in themselves. We can also help students with learning disabilities succeed by realizing that technologies are a useful and necessary component of the teaching of literacy, especially in accommodating students with special needs in the authentic writing process.

“Learning disabilities” is identified under “federal law” as an “umbrella term” that covers thirteen sub-impairments that qualify an individual as being learning disabled (LDAA 2). Listed below are some the following learning disabilities that are “neurologically-based processing problems” which affect how students learn (2). One category of impairment is known as an “auditory processing disorder.” Students with an auditory processing disorder struggle with how sound is “interpreted by the ear” or “processed by the brain.” Difficulties in phonics, sound blocking, and “order of sounds” are also characteristics of an auditory processing disorder (LDAA 2). Incorporating activities that feature technology into authentic projects allows students with auditory processing disorders to compensate. For example, teachers can implement a resource such as closed captioning on videos, which allows students to read a text that narrates what’s being said in a video as it’s happening, to help students help reinforce the content being heard in the video. “Dysgraphia” is another learning disability that impacts “fine motor skills” such as “handwriting,” “spelling,” and the ability to multi-task in doing both “thinking and writing at the same time” (LDAA 2). A student with fine motor impairments can utilize the



accommodation of a personal computer in order to type notes or drafts of an essay rather than struggle with writing on paper, which may take twice as long and causes great discomfort. In authentic projects, students aren't forced to choose between thinking or writing and are able to first think, then write (or type), and only consider spelling after the ideas are already on paper. Students with dysgraphia can also utilize technological assistances such as spellcheck on word document programs if their deficiencies are more severe to help keep the writing process moving along. Other "related disorders" to learning disabilities which can affect the writing process are: "ADHD" which is the inability to maintain focus or control impulses, and "Executive Functioning" where the part of the brain that categorizes stimuli has deficits in patterning, "strategizing, remembering details, time management," and "memory" (LDAA 3). ADHD and Executive Functioning are both disorders that are not considered learning disabilities but are usually synonymous with LDs and only make learning that much more difficult for an adolescent (LDAA 3-4). A student with ADHD who is in the brainstorming process of an authentic writing project and has difficulty getting his thoughts down on paper in an organized manner may utilize a voice recognition recorder like Dragon to not only record thoughts and be able to replay them but also to help him quickly record all the ideas that may come to him at rapid fire to be later organized and sorted. Dragon's technologies allow a student to speak into their device and record what they are saying which they may otherwise have difficulty demonstrating. Dragon's fully voice activated system allows students to write using their voice, edit, and command other actions. Technologies are the multi-modal instruments that help facilitate more complex writing because they assist students in their attention to grammar, spelling, tone, and purpose by assisting them in a way that is more manageable and attainable for them to achieve.

With learning disabilities in mind, we must consider the many parts of the brain that work together to help create meaning so that we can help students strengthen areas they struggle with and emphasize building skills they excel in. With understanding how the brain makes meaning, we can help students learn to work around their difficulties using the skills they already do have. By learning how one understands, we can better help implant necessary information into a student's memory, especially those students whose brains have more difficulty in processing information. According to Catherine Cobb Morocco, understanding is a multi-faceted, "organizing" tool our brain uses to infer meaning and how we obtain that information is based on different "content areas." Morocco explains that our brain makes sense of the world around us by looking for the following signs or benchmarks to infer meaning (6). How our brain understands also runs in synchronization, according to Cobb Morocco, with past experiences, a basic understanding of the world, and "habits of the mind" which are all of our idiosyncrasies based on how our brain is hard wired. It is with all of these skills and experiences that a person is able to "move beyond" new information to create new meaning and methodologies that exemplify a "deep understanding"(Cobb Morocco 7). Most importantly, Cobb Morocco and many others at the REACH Institute believe as a result of extensive research that understanding is achieved at a much deeper level if a subject is engaged in "doing...rather than simply reading"(7). In my classroom, for example, I have my students decode the difficult language of Shakespearean English in a much more memorable and relevant way. We tackle the difficult text by interacting with the language as opposed to just simply reading out of a book for comprehension. I have my students achieve this understanding by allowing them to read lines in the persona of their character, be on their feet and move around as they read, use props that are relevant to the scene, and discuss personal connected experiences with the conflict, emotion, or characters being

portrayed. Interacting with the text in this way takes understanding a step further. This exercise engages many different parts of the brain at once and allows students to make sense of the material using as many senses as are available. By reading in this way, the lesson is not only achieving understanding in the way that Shakespeare was meant to be read, as a performance, but also allows my students the opportunity to work through deeper concepts such as why a character may use certain words or why stage directions may change because they are directly involved in the motivation component. This type of activity allows my students to be an actual part of the text as opposed to being an observer who gets lost in the translation. To connect this authentic exercise to technology, my students with learning disabilities can record their performance on video outside of class, allowing for more opportunities to review lines in between takes, revise and edit scenes they would like to make better, and reduce the anxiety or pressure that may come with performing for a live audience (their classmates). It is a well-known fact among educators that those with learning disabilities struggle with the ability to use these three types of understanding due to cognitive deficiencies or misfiring (Garcia, de Caso 142). Whether it is only having trouble with one category of understanding or all three simultaneously, the more we activate their senses to interact with new information using their strengths, the better students with disabilities are able to comprehend information on a more sophisticated level and apply that knowledge they learn to new situations.

## **Process Writing**

Students can tackle more complex writing pieces by breaking down the writing process into steps and completing tasks one step at a time. Heidi Hallman argues that authentic writing projects can inspire students with even the most difficult circumstances through the use of process writing (44). Process writing occurs through a selectively organized drafting process that allows students to tackle smaller pieces of a larger project one step at a time such as pre-writing, writing, revising, and editing. What makes process writing authentic and that much more successful is the extra step of motivation that fuels the entire writing process. A major problem that students with learning disabilities face is when they receive a large project, particularly with writing, they panic and see the piece as one large roadblock. Even if students attempt to tackle the assignment, they often feel as though they are a small fish in a large ocean, unsure of where to start or how to write to please the teacher. By breaking down the steps but most importantly connecting learning to something that is meaningful to a child, the little victories add up to one large victory and they do not become overwhelmed by the bigger picture in the process. Authentic projects and process writing, if done correctly, can complement each other and help students with learning disabilities achieve quality writing pieces that are publish worthy because together they prioritize the order of importance of what is needed to accomplish a well-written piece and build motivation behind writing to keep the sentences flowing.

Hallman identifies authentic process writing assignments by beginning with modeling exemplar texts based on a topic that is important to students. Students analyze textual features of a model with the same rhetorical purpose and then use the skills they have uncovered to create a multiple-draft writing piece with an original topic (Hallman 44). In multiple draft processes, content, then structure, then finally spelling and grammatical errors prioritize activities. All of

these skills are otherwise taught as needed and ultimately give writing in the classroom less purpose. It has less purpose because it does not inspire student motivation because they cannot see the bigger picture of how their editing impacts the overall quality of their writing. Juxtaposed to non-authentic methods of teaching process writing, the teaching of authentic writing as a process based on something that can impact a student personally builds foundational habits in a logical, stress-free order and is always a work in progress for the whole class, regardless of genre or ability level.

Carole Edelsky and Karen Smith, who are prominent educational researchers as well as teachers at Arizona State University, challenge the outdated belief that non-authentic styles of teaching focus on “imitation” which “transfers” into authentic writing and argue that in truth, motivation does not come primarily from teacher driven prompts but comes from intrinsic interest in subjects that relate to a student personally (24). Teachers once showed students the poems, for example, of Robert Frost to teach them to appreciate a piece of writing and understand the language or rhyme scheme. As a result of the poetic readings, students would then be assigned to create a similar style poem, regardless of whether or not the samples had any relevance or meaning to their own lives. Sadly in truth, many students do not go on to become English scholars and find little relevance or purpose in such an activity that has little to do with their modern world, aside from some general themes. Motivation can only go so far if the class content does not cause students to pause and feel a personal connection. A task such as this will prove even more troublesome for students with learning disabilities who have an incredibly difficult time fostering motivation because of their cognitive inabilities (Garcia de Caso 142). Due to this cognitive inability, they may not be able grasp deeper, more complex meanings hidden between the words of Frost and therefore develop an even more negative perception of

reading because they are the ones in their class who “don’t get it.” Students with learning disabilities harbor such negative self-image issues and produce “maladaptive” or inappropriate behaviors as a result (Garcia de Caso 142). To combat the negative behaviors which come as result of frustration, it is essential to implement a writing process that slows down to facilitate information that suites the way they best understand information as well as strengthen their abilities to build their own metacognition, specifically in their positive beliefs about achievements, regardless of how big or small such as using words that build on their achievements rather than condemning their shortcomings (Garcia de Caso 142).

## **Authentic and Non-Authentic Teaching Methods**

Some educational philosophies credit independent writing, spell checking, and grammar checking as skills that need to be mastered in order to make great writers, but these activities, if done improperly, can actually do more harm than good for student writers. In 2007, Steve Graham, a professor of special education and literacy, and Dolores Perin, an associate professor of psychology at the Teachers College of Columbia University, reported to the Carnegie Corporation of New York, which aims to advance in the “diffusion of knowledge and understanding,” their intensive research on what teaching techniques promoted the most effective outcomes for student achievement in literacy (ii-1). In their meta analysis, they “considered both strength and consistency of the effects” of various teaching methods wherein a size of “.20 = small effect” as opposed to a “.80 = large effect” on students. Overall, techniques such as “writing strategies” which teach students “systematic” steps of organizing their writing process scored a “.82 effect” and “collaborative writing,” which is placing weaker students with stronger students to organize and edit work scored a “.75 in effect.” In other words, allowing students to work collaboratively with their peers and use process writing to help better their writing proved to be the most successful teaching methods in the classroom. Their research also concluded that spelling and grammar exercises were only effective in their relation to the process of writing tasks (Graham and Perin 13, 23). For example, if a teacher finds that many of her students struggle with subject-verb agreements after reviewing an early stage draft, she could create a mini lesson that eventually would allow students to analyze their own work and correct their own misuse of subject-verb agreements. Because students will connect the grammar lesson to their own writing, the lesson will be relevant to their specific needs and therefore more useful in order to move forward in the writing process. In contrast to their findings of teaching grammar in

relation to the writing process, their analysis of traditional grammar instruction such as workbook exercises or isolated grammar instruction produced a startling negative effect on both average and low achieving writers. This leads one to believe that traditional grammar instruction does more harm than good. The results showed that the teaching of grammar negatively affected the overall quality of the students' writing because it was irrelevant to students' needs.

Furthermore, their research revealed that "writing to learn" which is writing for the purpose of enhancing personal knowledge and "learning to write across content areas" which is producing structured and organized writing in other subjects both strengthen students' spelling, grammar, and vocabulary knowledge (Graham and Perin 21-23). To conclude their research, they identified that traditional grammar instruction, which focuses on teaching things such as parts of speech and isolated sentence structure exercises, does not improve the overall quality of student writing.

Graham and Perin also credited motivation as a direct factor of success for low-level achievers and recommended that teachers motivate students with disabilities so that their basic proficiency does not decrease so significantly (Graham and Perin 21, 24). By allowing students to utilize programs such as Grammarly, a computer program which helps identify grammar issues as they relate to an overall piece, students may notice trends in grammar errors that they would otherwise not notice nor care too much about. While technology is helpful, it should not replace all grammar and spelling instruction because technology does not replace a teacher's ability to motivate and pinpoint when and how much enrichment a student may need to achieve a better quality writing piece. We must consider in the grand scheme of writing for students with disabilities that technology will be most beneficial in aiding them to produce higher-quality work that does not cause frustration or diminished self-esteem due to surface errors.



One of the greatest things about being an educator in the 21<sup>st</sup> century is how much more of what we do in the classroom can be accessed from home. Just as we may give an extra copy of class notes to a student as per their IEP, so can we make available multimedia resources we use during our lessons, recordings of our class lectures, e-copies of textbooks equipped with audio readers, and other secondary materials that students may use as reinforcement for concepts they struggled with during the lesson. In fact, Mary Poplin, a professor at the Institute for Education in Transformation, claims that learning disabled students may actually benefit even more from technology than general education learners because of the overflow of accommodations being designed to help them succeed (134). It allows for transparency in the classroom because parents feel more in touch with what they can do to help their child succeed. This is because it allows them to log on to their child's class blog or online classroom to keep on top of upcoming assignments, be able to dialogue with their child about specific classroom activities, and even see their child's work and interaction with the classroom firsthand. Technology also holds teachers accountable for ensuring the maximum amount of success for all of their students, not just their learning disabled ones.

## **Utilizing Technology in the Classroom**

One of the most accessible technological resources available that can aid in the authentic writing process and is available to the general public is Google Classroom, which includes Google drive, docs, and many other incredible features. Google classroom is an interactive online classroom that allows for easy and organized storage of all items students need to succeed in the classroom and beyond. In the private online classrooms, which are broken down by subject, students can post questions about lessons, communicate with their classmates through chats for group work, and complete assignments using their Google apps which automatically sync to the online classroom. For students, having an app on their phone allows easy access to assignments, documents, and most importantly, calendar reminders of due dates. The notification reminders are especially beneficial for students with learning disabilities who may particularly struggle with keeping track of due dates. For teachers, Google classroom makes student work more accessible to keep track of for the purpose of participation because they can access changes made to drafts and general login activity as well as being able to analyze major issues students may have with their writing so it can be tackled much earlier on in the writing process. Google Classroom's technology works with most smartphones which are voice recognition compatible so students can use their audio devices to orally narrate short stories or complete homework assignments that are otherwise a lengthy process and difficult to tackle writing by hand. By accessing Google Docs or Slides through the classroom apps feature, a student needs to simply open a new document, click on tools, and click on voice typing to begin narrating their writing pieces. To punctuate sentences, students can simply say new line or period to demonstrate that they are writing with structure. Mary Poplin celebrates features such as these that now “reward,

instead, the creative, visual-thinking dyslexics and others like them who have had such a difficult time in literate society for so long” (134).

Other features available for all documents on Google Classroom are the dictionary, thesaurus, and countless other downloadable apps. The research tool allows students to look up ideas, pictures, charts, videos, and other multimedia secondary information based on specific words they use in their writing. This feature is considered authentic because it encourages students to research questions that naturally arise or interest them while they write and allows for many different mediums to achieve that knowledge. If students have difficulty typing on a computer keyboard, they are able to write using the same keyboard they would use on their phone to text. As schools begin to cut down on keyboarding classes that focus on the home row due to the more advanced technological abilities of youngsters, it seems more prudent to allow students to use typing software that they are most skilled and comfortable in using to complete writing pieces. Google Classroom allows more accessibility for all involved with the learning process because of the easy to use set up and through the e-records of data that can be collected by the teacher to monitor student progress. It is technologies like Google Classroom that can be used to help develop many foundational skills while simultaneously inspiring students to produce higher quality pieces of work because they have more accessibility to work on their projects.

According to Mary Poplin, technologies are extraordinary tools that allow students with learning disabilities to “compensate” for weaker skills in order to “develop special talents” and “liberate” a student to achieve so much more (131). Using a class blog where students take charge about an issue of debate is an example of an authentic project that builds foundational skills, peer relations, and helps them make informed decisions that foster the beginnings of adult values that are spoken to a real audience. Students can write about their passions on a class blog

and will be much more motivated to correct their grammar and spelling because they will want their classmates to take their ideas seriously and learn about their topic. In turn, they will be willing to ask for more help in building their ethos as professional writers. Socially, blogs teach students how to become writers who can have different moral opinions on topics and yet still make their points heard in an intelligent and thoughtful way. The Internet offers endless examples for educators to share with students on how to properly debate and critique in a constructive and thought-provoking way. Finally, students who may think they have nothing in common can find that they have similar values when it comes to blogging political or social views and if not friendships, mutual respect can be born between classmates who would otherwise have nothing else to relate to each other by.

Poplin highlights the idea that school is supposed to teach our youth how to be “prepared for life,” yet in the real world, “to say one must be a good speller is unrealistic in today’s world full of spell check and now speech synthesis”(136). Our curriculum, according to Poplin, focuses on “an overdependence on linguistic and logico-mathematical intelligence, reductionistic skills, and requiring a kind of attention-to-task that is not required in any other context” (136). Instead, we must prioritize what skills students have naturally and guide them to build upon these skills through the use of technology to compensate or “work around” other shortcomings (Poplin 136). At a Columbia Teacher’s College conference on developing reading and writing curriculums, Lucy Calkins, who is a curriculum writer for the Teacher’s College Writing Program, explains that students ultimately will have to write “quickly and proficiently” in upper grades on college bound exams (2015) and if we consider that most standardized testing is moving towards technology based examination forms, we are preparing students to do well with the medium they are most comfortable with. Students with disabilities who struggle with basic literacy skills

deserve to be seen and heard by their classmates in the way that they are best able to communicate. With these types of technological assistances, we can help bridge the gap of what students with disabilities can achieve and most importantly what they believe they can achieve as communicators of language.

## Recommendations

There are many activities that teachers can use in class lessons that meet the needs of students with learning disabilities, are authentic, and incorporate technology. I have noticed in my own classes that when students are given writing tasks that allow them to voice their opinion on various constructive forms of social media, they produce quality writing that is unparalleled to any other writing activity. One activity that I incorporate into a quarterly project is having students write up a book review on a website called Goodreads.com. This website allows users to create a reader profile that helps the site recommend books based on their previous literary likes and dislikes. After reading a book, users are able to give specific feedback and rate the piece in order to inform other prospective readers. After reading a novel, my students have the opportunity to write up an informative piece on Goodreads where they do not summarize the novel, but discuss an original theme based on a character or event that inspired them throughout their reading. They are required to use evidence from the text to strengthen their idea, but overall to make personal connections and recommendations for others to read or not to read the novel. For example, many of my students read *The Outsiders* independently and chose to write about gang violence or peer pressure in response to the novel. They found that their comments were well received by other readers and talked about their writing piece well beyond the lesson. Another example of an authentic assignment that incorporates technology would be allowing students to create a class podcast that aligns with what is being learned in the curriculum. For example, in studying the civil rights movement and civil disobedience, my students created a script in which they read and discussed issues that connected the historical movement to current events in their community and society. After creating a podcast, they displayed their podcast on our class blog for members of our community to discuss and respond to. There are endless

examples and forms of writing that can be taught in an authentic and structured manner that allow students to have their voices heard in a constructive and intelligent way.

Students with learning disabilities do not always have the support of those who will advocate for the services they may need. They often have even more trouble verbalizing what it is that they need to succeed in the classroom. We must learn to advocate for them and read other cues that tell us what our unconventional learners need from us to build their skills as well as their confidence both in and out of our classroom. Through teaching authentic writing skills, we can show students how to use language to advocate for themselves, understand that writing is always a work in progress, awaken passions based on strengths they did not know they had, problem solve using multiple steps processes, and most importantly to foster positive relationships with peers which will eventually transfer to co-workers. When we change the way we see students with disabilities from limited to differentiated, we can then create more engaging and relevant lessons that will positively impact all of our students, not just those who struggle.

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