UNIVERSITY OF CALIFORNIA, SAN DIEGO

Boosting Technology Literacy in Deaf Students

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Teaching and Learning: Bilingual Education (ASL-English)

by

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This thesis of Blake Max Herbold is approved and it is acceptable in quality and form for publication on microfilm and electronically:

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Chair

University of California, San Diego

2016

DEDICATION

My thesis is dedicated to my parents for making me the person I am today. They served as my primary role models and it is in my habitus that I follow in their footsteps as educators of the Deaf community.

To Bobbie Jo Kite, whom is also a fellow educator, for inspiring me to be the best I can be. Thank you for unconditional love and support during the home stretch. I couldn't have done it without you.

EPIGRAPH

Communication in humans is a resilient phenomenon; when prevented from coming out of the mouth, it emanates almost irrepressibly from the fingers.

Goldin-Meadow & Morford

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ABSTRACT OF THE THESIS

Boosting Technology Literacy in Deaf Students

by

Blake Max Herbold

Master of Arts in Teaching and Learning: Bilingual Education (ASL-English)

University of California, San Diego, 2016

Professor Tom Humphries, Chair

Technology in education is a global phenomenon (Knezek, 2007). In an increasingly digital world, technology is rapidly changing the way we live. The advances of technology in society has created a demand for foundational technology skills in educational systems. Schools across the nation fall in line to revamp traditional curriculums with technology. A plethora of digital learning resources for educational use have surfaced, albeit none of the resources address the needs of a

bilingual Deaf student. Extensive research has indicated a lack of technology resources that are aligned towards deaf students and demonstrates a gap in Deaf education. Technology provides accessible communication solutions for Deaf people in this generation and we must teach our students to capitalize on this leverage. However, because Deaf students learn visually, instruction is best delivered through a medium where ASL is the primary language in the classroom. The bilingual approach enables students to transfer their knowledge from ASL into the acquisition of English. The approach is reinforced through technological outlets within the curriculum and promotes literacy development. The curriculum evaluation concludes that the project is effective to student learning and is ground-breaking in terms of providing a bilingual foundation towards technology integration in the classroom. By providing Deaf students hands-on experience through technological applications, they will be able to take away from what they learned and apply their newfound skills towards the future.

I. INTRODUCTION AND OVERVIEW

The basis of this thesis is geared towards integrating technology into the bilingual classroom for deaf students. This curriculum will approach instructional strategies for integrating technology through bilingual practices to support deaf students' learning. The five goals of this curriculum focus on the provision of opportunities for students to learn digital age skills through technology within bilingual applications. They are listed below:

1. *Technology Operations and Concepts*- students will exhibit a robust understanding of technology concepts, applications, and operations.

2. *Research and Information Fluency*- students will develop skills to gauge credibility of internet sources to gather and process research information.

3. *Collaboration and Communication*- students will learn to use digital media to work collaboratively as a group and communicate with others digitally through ASL and English.

4. *Creativity and Innovation*- students will harness their knowledge of technology to foster creativity in developing innovative digital media productions.

5. *Bilingual Development*- students will address bilingual development in ASL and English through technology applications.

The purpose of this project is to address the need and/or lack of research pertaining to bilingual technology integration resources aligned towards the education of Deaf students. Since there is a plethora of information regarding technology integration in education, I will draw from these resources to develop a curriculum that promotes a bilingual approach in technology integration.

The general design of my bilingual curriculum provides laptop access for all my students, and *International Society for Technology in Education* (ISTE) standards were implemented as the basis for technology integration. Because Deaf students learn visually, instruction was delivered through medium where ASL was the primary language in the classroom, and English development was facilitated through technology use. Students were capable of performing translations from L1 to L2- receiving instructions in ASL and responding in English commands with technology. This project is groundbreaking in terms of providing a bilingual foundation towards technology integration in the classroom.

II. THE NEED FOR BILINGUAL APPROACHES TO DEAF EDUCATION

My experience as a deaf person, attending a deaf school and deaf university growing up has allowed me to see the best education practices for deaf students. Because deaf people navigate between the use of two languages- ASL and English in their daily lives, it heightens the importance of a bilingual approach in deaf education. Research shows that bilingualism has clear cognitive benefits for deaf children who learn through ASL as a primary mode of communication and language (Baker, 2011). By instilling the bilingual approach, students learn to transfer their knowledge from ASL into the acquisition of English, which reinforces literacy development. Research also shows that there is a positive correlation between ASL skills and reading achievement, in which bilingual students who are exposed to ASL perform better than their monolingual counterparts in English literacy tests (Strong et al., 1997). The advantages of bilingualism are extraordinary and grants students with a greater degree of divergent thinking and of creative thinking (Hamers, 1998). The higher intelligence scores of bilingual students are attributed to greater mental flexibility and concept formation by manipulating two languages and analyzing semantic features in greater detail (Hamers, 1998). This results in the development of a greater ability to reflect on language. This is consistent with Cummins' linguistic interdependence theory, derived from the evolution of the threshold theory (Baker, 2011). It refers to the frameworks of the "Common Underlying Proficiency" and the "Iceberg Analogy" to define how proficiency in the first language will help facilitate development in the second

language. It refers to the neutral or "partial" threshold of the threshold hypothesis, in which the user is proficient in one language and limited in the other (Baker, 2011). The higher the threshold of fluency in ASL will make it easier for one to learn English. The theory states that there is a positive transfer of skills from ASL to English because the common features underlying proficiency contributes to the development of both languages, as shown in the iceberg analogy (Baker, 2011). In this theory, "proficient" in ASL requires fluency of the academic demands of the classroom in cognition and higher-order thinking to make way for easier development in English. This theory supports bilingual education because the development of a higher threshold is a result of the facilitation of interdependence in language. As a higher threshold is reached, it produces positive results which contributes to cognitive advantages. In the case of deaf children, language transfer is a crucial element in their learning. Language transfer is the ability to transfer knowledge in the ASL language to the English language. In other words, the development of English skills in deaf students are delivered through ASL instruction. With competent skills in ASL, it contributes to their acquisition of the English language.

The importance in bilingual education lies in the pedagogy of the approach. Educators must ensure that the progression of student learning is on par with the stages of bilingual development. One of the most critical concepts in the approach of bilingual pedagogy comes from Stephen Krashen, who introduced the comprehensible second language input theory in 1981 (Haynes, 1998). It focuses on how language is acquired and processed. Krashen states that in order for one to process language

effectively, the “comprehensible input” must be slightly ahead of their knowledge in that language for them to be able to progress in acquiring language further (Haynes, 1998). This concept is defined as “+1” so if the learner is at level “B” then the comprehensible input would be B+1 (Haynes, 1998). If the input is too advanced for one’s knowledge of the language, information will not be retained and will be lost, resulting in no significant gains in learning the language. If the input is too basic or repetitive, one will not be able to advance in their learning. It has to be right above their skill level for effective learning to occur. This theory refers to the input of language, but for one to output, it requires further competence in the language before they begin to produce output. If one hastily tries to produce output without enough knowledge of the second language, then one will refer to the rules utilized by the first language but will not effectively heighten their progression in the acquisition of language (Haynes, 1998). This theory demonstrates the importance of keeping up with the students’ bilingual developmental levels in order to maintain the optimum caliber of their progression. This can be done by using a variety of bilingual education tools aligned towards deaf students. Techniques such as chaining (Humphries, et al., 1999) and fingerspelling (Padden, 2006) allow deaf children to make connections between ASL and English. Chaining is a technique that involves a series of associations with ASL and English by fingerspelling a word, then pointing to the printed word on text, then fingerspelling it again (Humphries, et al., 1999). Chaining is frequently found and used by deaf teachers across the nation. It demonstrates use of the linguistic interdependence theory as mentioned earlier. Fingerspelling is critical to the early

development of bilingualism, in which students learn to recognize fingerspelled words as whole units and learn to associate them with the letters in the English alphabet (Padden, 2006). The importance of linking ASL instruction to English activities are demonstrated in bilingual classrooms and in the development of bilingualism in deaf children. There are many ways teachers can address the connection between both languages interdisciplinary and across all grades. It is a critical component of the pedagogy of bilingual deaf education.

In regards to the socio-cultural demands of deaf children, I will tell you a little bit about myself as a bilingual deaf person. When the word, "Bilingualism" comes to mind, I immediately associate the term with Deaf people. To be Deaf is to be bilingual. In order for Deaf people to ensure total communication access in society, they must be able to operate within the parameters of the four basic language abilities just like everyone else to communicate fluently. With the understanding of the four language abilities (listening, reading, speaking, writing) in their respective oracy and literacy as well as receptive and productive skill categories, one might begin to see why Deaf people might not be monolingual. Many Deaf people do not possess the abilities to conduct "oracy" skills because they do not hear nor speak. As an alternative, Deaf people utilize their visual skills instead, in which they are able to perform receptive skills of listening and signing through ASL. However, since ASL is not a language that you can read nor write, Deaf people rely on English, their secondary language to perform productive skill functions such as reading and writing. Since Deaf people's language proficiencies diverge in approach when it comes to

receptive skills and productive skills, to be Deaf is to be equilingual or ambilingual. For this reason, I am a firm believer in promoting the bilingual approach in my curriculum in order to stress the importance of portraying clear connections between both languages, yet being able to focus on each language individually to promote growth and development within their respective parameters in the hopes that they become fluent ambilinguals. The identity of a Deaf person has much to do with being a part of two worlds, the ASL-signing Deaf world and the English-speaking hearing world. The socio-cultural nature of language in two worlds bring complementary positive elements to the child's overall development. Because deaf people are considered a minority, it is critical for the community inside and outside the classroom to valorize the ASL language and maintain its' use in order to affirm the students' identity development because they will gain acceptance in the Deaf community. In addition to the use of ASL, we must provide opportunities for students to learn about the norms and traditions of Deaf culture, including Deaf history and heroes, as well as ASL storytelling. This will allow my students to develop a sense of identity and pride in their Deafness that they will want to nurture and protect.

III. THE NEED FOR THIS CURRICULUM

I observed an accelerated movement towards the digital age that has become a way of life in our generation. Technology has become a critical component of our society. Schools all across the nation has called for action to integrate technology into education, because technology has forever changed the way that our students learn. I realized that as educators we must adapt our pedagogy in order to accommodate the contemporary ways of learning and find ways to integrate technology interdisciplinary, across all subjects and grade levels. The benefits of technology integration demonstrate increased motivation, literacy development, communication skills, access to information, and other collateral benefits. There is an ever-increasing need for computer literacy and technology skills in the job market. We must capitalize on this in order to provide our students with more job opportunities in the future.

However, in this observation I have acknowledged a gap in deaf education, which is the lack of a bilingual approach towards technology integration for deaf children. This lack demonstrates the need for this project. Too often, teachers focus on the reinforcement of technology skills, rather than the pedagogical focus of technology integration. I have noticed that it happens more frequently in deaf classrooms, because teachers need to apply a bilingual approach in addition to the pedagogy of technology integration. Through my experience growing up at a Deaf school, I have witnessed firsthand how technology education is lacking and strongly feel that it should be a critical component of the education of deaf children. As visual learners, deaf students

will benefit greatly from technology integration when it comes to making connections between directed ASL instruction and English directives on the computer screen.

The importance of learning English as a second language is heightened through the demands of technology. The use of technology requires competence in English in order to assist students in decoding instructions and knowledge on the computer screen and assists in navigating student learning. Students must be able to read English text to reinforce their comprehension. This highlights the importance of the bilingual approach, where educators use ASL to reinforce student understanding of English texts.

The objective of my curriculum is to address the lack of research pertaining to bilingual technology integration resources aligned towards the education of Deaf students. Since there is a plethora of information regarding technology integration in education, I will draw from these resources to develop a curriculum that promotes a bilingual approach in technology integration.

IV. REVIEW OF EXISTING RESEARCH AND CURRICULA

There is a plethora of existing research and curriculums pertaining to technology in the classroom, however, there is little research that employs the bilingual approach in this domain. This poses a technology integration exigency in deaf education. The existing research provides excellent insight and guidance towards integrating technology, however, they are geared towards monolingual classrooms. Regardless, the existing research will serve as the bedrock of my technology integrated curriculum as I administer the inclusion of bilingual practices and approaches to enrich the education of deaf students.

After conducting numerous searches associated with technology integration, I came across several resources that solidified my understanding and will assist me with the development of my curriculum. The first resource comes from the *International Society for Technology in Education* (ISTE) standards. It is designed to assist students in digital age learning by providing teachers with a roadmap for technology integration into the K-12 classroom. This resource is state of the art, and I concluded that my bilingual technology integration curriculum needed to be aligned with these standards. The ISTE standards are critical to the development of my curriculum because currently, teachers in deaf education are incorporating technology into the classroom without resources or knowledge how to integrate bilingual practices in technology education.

This brings me to my next resource- I discovered a curriculum that fits my vision in Patricia Yost's journal article *"Fitting the pieces together: successful technology integration with Laptops",* this study characterizes that successful technology integration would require a pedagogical focus rather than a technology skills focus. In her study of a lucrative "laptop initiative" pilot program in Pennsylvania, she provides a detailed outline of how technology is integrated into the curriculum and goes on to delineate the essential conditions of the curriculum in regards to equipment, teacher readiness, and ongoing professional development. This resource asserts my confidence in a successful technology integration curriculum, thus allowing me to shift the focus towards applying bilingual practices to the curriculum.

Regarding bilingual practices, I discovered only two resources that correlate bilingualism and technology, although both resources are similar and serves as a small portion of my curriculum. I came across Lucinda Baugh's UCSD MA thesis, *"Bridging Literacy at Home and Classroom Through ASL Storysigning DVD"* that successfully integrates technology into the classroom by having students create a DVD of ASL storytelling that they can take home and share with their families. The primary focus of this thesis is to foster the connection between student learning in the classroom and sharing it with their families outside the classroom. This thesis does not directly relate to what I want to do in my curriculum but alas, it does in a sense when it comes to bridging the bilingual approach with technology. The second resource comes from the *"Odyssey",* which is a deaf education publication funded by the Laurent Clerc National Deaf Education Center at Gallaudet University. In the

spring/summer 2009 issue, I found an article titled *"Bilingual students Publish Works in ASL and English"* by Petra Horn-Marsh and Kester Horn-Marsh. This article is relevant to the development of my curriculum because it promotes the use of a special space to strengthen academic skills in both ASL and English. This special space is called the "Bilingual Multi-Media Room" (BMMR), which is a sophisticated environment where students are capable of integrating technology into their studies. The BMMR has two areas- the viewing and recording area and the computer lab area. Here, students are capable of viewing DVD/VCR videos of ASL poetry and storytelling, constructing writing projects, taping video journals and presentations. This room provides students with opportunities to use technological outlets to expand their learning. The article also outlines the development of Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) skills in the bilingual approach. It provides a very detailed insight into the bilingual practices applied with the use of technology integration, which provided me with assistance in developing a bilingual technology integration curriculum of my own.

V. KEY LEARNING THEORIES

Four key theoretical learning frameworks serve as the foundation to support my students' bilingual development through technology integration in the classroom. Since my curriculum focuses on two critical domains (bilingual education practices and technology integration) that are central to their learning, I have carefully selected contemporary and conventional learning theories that accommodate the domains presented in my curriculum.

The first conventional learning theory is *Scaffolded Instruction* (Vygotsky, 1978), which guides my students through their learning by modeling instructional steps and making content accessible by using ASL as the primary language of instruction. It incorporates the use of concrete materials, illustrated vocabulary banks, and graphic organizers to help students make sense of technology applications. This theory is critical to the implementation of my curriculum because my students need to be guided through instructional steps to understand technology operations and concepts that encourages student engagement and reduces frustration levels.

The second conventional learning theory, *Student Centered Learning* (Armstrong, 2012) guides my students' learning primarily by focusing on their interests. This acknowledges the students' freedom in choosing what they want to learn. The teacher acts as a "facilitator" for learning and provides support to students which benefits student-teacher relationships . Student centered learning is paramount to my curriculum because it allows my students to be creative and innovative in their

use of technology. By supporting their interests, it promotes student motivation and active/discovery learning through technology.

The third learning framework, *Distributed Cognition* (Bell et al., 2000) is a contemporary theory that promotes a collaborative environment where students work together to achieve a central goal. Roles and responsibilities are distributed amongst the student, thereby reducing individual cognitive loads. This theory ensures that student learning occurs through interaction and communication with other participants. It aligns with one of my goals for this curriculum, in which students will learn to work collaboratively as a group and communicate with others. Since the use of technology can be overwhelming at times, it is important to ensure that the students learn from each other by helping their peers.

The fourth learning framework, *Situated Cognition* (Myers et al., 2000) is a contemporary theory that guides my students through their learning by providing specific contexts in which they use available tools to locate knowledge. Knowing evolves with experience in interactive situations. This theory is best executed by the integration of technology in the classroom. Providing access to technology through applications/programs and the internet will help facilitate higher-order thinking and problem solving skills to help students make decisions on how to move forward.

VI. THE CURRICULUM DESIGN

The locus of this curriculum is to provide bilingual deaf students with opportunities to learn digital age skills through technology integration- while concurrently enabling further academic language development in ASL and English. We are part of an increasingly digital world where technology is rapidly changing the way we live. Traditional learning environments and basic technology use in the classroom is no longer enough. We must wield the power of technology to *teach* our students how to *learn* digitally. Only then will our students be able to learn effectively and productively in the long run. This curriculum is exclusively designated for bilingual deaf students and instruction is primarily delivered through their native language of ASL, while written English is facilitated through the use of technology. The objective is to empower deaf students to think and act bilingually in digital-rich environments.

New technology concepts and applications require us to first learn about the technology in front of us before we use them. Therefore, the structure of this curriculum is built on the foundation of progressive learning, which is based on a gradual increase of technical knowledge within each successive lesson. This process allows the students to transfer their current knowledge to new technologies and use higher-order thinking in technical applications, thus effectively paralleling their zone of proximal development (ZPD), (Vygotsky 1978). This curriculum can be used to

overlap other curriculums and can be used interdisciplinary, which allows a greater degree of versatility in practical subjects.

This curriculum encompasses three separate partitions that serve as the primary areas of focus. They are as follows: 1- Introduction to technology, 2- Tools for communication and collaboration, and 3- Research and information fluency. Each partition is goal-oriented and is sequenced in such a manner that each successive lesson increases in difficulty and builds on the previous lesson. In the first partition, students learn about technology and what it means. In the second partition, students learn about various digital tools used to communicate and collaborate with others, and experiment in its' use. In the final partition, students apply what they learned by using digital tools to conduct a research project.

The standards and goals were chosen based on the teaching subject and grade level of my placement. Because I was to implement my curriculum in a deaf middle school English language arts classroom, I used 6th-8th grade English language arts reading and writing Common Core State Standards (CCSS) jointly with the International Society for Technology in Education (ISTE) standards in the development of my curriculum. However, the lessons and standards used in individual lesson plans can be modified to meet your class needs.

"The ISTE Standards set a standard of excellence and best practices in learning, teaching and leading with technology in education". (International Society for Technology in Education, 2013)

By incorporating the latest ISTE standards alongside the CCSS standards, I was able to ensure that my technology lessons (tools and activities) help students build proficiency for each specific technology indicator. These standards help me measure and assess students' skills and abilities in their use of technology. The ISTE standards are widely recognized and adopted worldwide, with a mission to empower connected learners in a connected world.

In order to evaluate the efficiency of this curriculum, three primary pillars (objectives) were developed. They are as follows: 1- The quality of implementation, 2- The quality of student learning, 3- The quality of student applications. In order to measure pillar efficiency, three tools were deployed and they include student performance rubrics, student work samples, and field observation notes. This approach will evaluate my curriculum and determine its validity in future use.

VII. THE EVALUATION PLAN

The efficiency of the curriculum is measured through three pillars that serve as the backbone of the curriculum. Each pillar is instrumental in its' own right and ensures the consistency of curriculum effectiveness. They are as listed below:

1. *The quality of implementation*
2. *The quality of student learning*
3. *The quality of student applications*

Three individual tools are deployed to measure strength in each pillar. When combined, the tools constitute the effectiveness of the curriculum as a whole. The three tools include student performance rubrics, student work samples, and field observation notes. Each tool is designed towards a certain pillar and each uses an original approach in extracting data and/or evidence of student performance.

1. Student Performance Rubrics

Student progress is measured through a rubric, which contains a set of defined rules that operate on a matrix to represent a weighted scale. Rubrics are to be used by instructors to assess student performance in the classroom and student work samples in order to document evidence of student learning, and to measure the achievement of the curriculum goals. In addition, they are also used to guide students in understanding expectations of an assignment and how it will be assessed and/or graded. The student

performance rubrics in the classroom are documented after each class, and the student work samples rubrics are documented when work samples have been collected.

2. Student Work Samples

Considering that two-thirds of the partitions in this curriculum are project-oriented and student-centered, the majority of student progress is measured through an array of student work samples such as: charts and data, research findings, essays, artwork, and digital video productions. These samples show evidence of student knowledge and applications towards the content taught within the curriculum. All print and digital student work samples are collected and screened for quality using its' own respective student performance rubric. By using rubrics, it allows instructors to calculate the mean, median, mode, and range of student performance for each lesson in order to determine the gaps in student learning.

3. Field Observation Notes

The implementation of the lessons are measured through field observation notes, which record anecdotal and reflective notes derived from instructor observation of individual and group student work, interactions, communication (quoting the students), and behavior during the lesson. A few of the observations recorded demonstrate student engagement, understanding, and/or confusion. Although they are primarily recorded after a lesson, they are occasionally recorded during the lesson during observation. The prime objective of field observation notes is to record any

gaps in student learning to allow for future modifications and improvements to the lesson and curriculum as a whole.

The first pillar gauges its' strength through field observation notes, which demonstrates how well the curriculum was implemented. The second pillar gauges its' strength through student performance rubrics, which demonstrates how well students learn from the given lessons. The third pillar gauges its' strength through student work samples, which demonstrates how well students apply what they learned from the given lessons.

The three tools, when used in congruence creates a torrent of data collection logs and evidence to be used for later analysis in the effectiveness of the curriculum. The results mined from the three pillars presents a comprehensive range of strengths and weaknesses within the curriculum design. It provides a foundation for instructors to make certain adjustments and improvements to better accommodate student needs in future use of the curriculum.

VIII. THE CURRICULUM IMPLEMENTATION

Description of Implementation Site

I implemented my curriculum at Washington School for the Deaf (WSD), a state-funded K-12 residential school for the deaf consisting of approximately 120 students. The school's mission is to perform as an educational community and statewide resource committed to ensuring all deaf and hard of hearing students in Washington reach their full potential. WSD prides itself on being a bilingual school and strives to provide a safe place where all world languages are celebrated and honored. In 2009, the school adopted the ASL-English Bilingual Professional Development Program as a training model for all school staff. In 2013, WSD staff completed the training program and the bilingual approach is now enforced and practiced campus-wide.

My student teaching placement was in two different classrooms, one was middle school language arts, and the other was high school drama. I implemented my curriculum in the middle school language arts classes, one class in the morning and the other in the afternoon. The particular language arts class consisted of five students in the 7th and 8th grade, ages twelve through fifteen. My cooperating teacher was a hearing woman in her 9th year of teaching at the school who believed in a strong bilingual approach. She demonstrates fluency in both languages, ASL and English. There was also a deaf teacher's aide in the classroom who helped with various errands and was always on standby to assist students. The language arts classroom

encompasses a balanced literacy program, with separate activities targeted towards reading or writing. Several activities for reading class include guided reading, read-alouds, independent reading, vocabulary development and literacy centers. For writing class, activities consisted of writer's workshop, composing book reports, dialogue journals and literacy centers. The physical environment in the classroom consists of three round tables that seat four people each. It comes equipped with a plethora of technology accommodations that includes a projector, document camera, SMART board, and three MacBook Pro laptops. A computer lab with twelve PC desktops was also readily available for student use down the hall. Because the MacBook Pro laptops came equipped with webcams, the students did a lot of VLOGs in class when working on their ASL book reports and ASL dictionary. This demonstrates that WSD ensures its' students has access to the latest technology and strongly believes in technology use in the classroom.

I taught my curriculum with five students in the seventh to eighth grade, all fluent in ASL and very competent. Meanwhile, the students' literacy skills are not up to par with their ASL skills. Their reading and writing skills range from the second to sixth grade. This demonstrates a wide range of literacy skills, abilities, and developmental needs in one classroom. As a circumstance, I made further modifications to my curriculum to ensure that the lessons were at or slightly above their development and provided adequate scaffolding so that they could tackle the lessons more independently.

Individual Student Profiles

1. **TP** is a fourteen year old boy in the eighth grade. He has deaf parents, who are WSD alumni. He has one hearing brother, but has full communication access at home. He is a bright and motivated student who is very fluent in ASL. However, he struggles with low literacy skills. He reads and writes at the second grade level. He admits that he does not read much but he has been working hard to improve his independent reading skills.

2. **CM** is a twelve year old boy in the seventh grade. He has a hearing family and typically communicates with his mother through spoken English. He stands out as one of the brightest boys in the class with strong ASL fluency and narrative skills. His MAP and STAR testing implies that he reads and writes at the third to fourth grade level. However, his work samples tells me otherwise. The youngest student in his class, he possesses strong literacy capabilities. He is not as motivated to learn as the other students.

3. **JS** is a fifteen year old boy in the eighth grade. He has hearing parents, but he also has a deaf sister. He hails from Bethel, Alaska and is a descendant of the Napakiak tribe. He prides in being a pure Eskimo. He does not have much communication access at home, despite having a deaf sister. He started attending WSD at an early age, which has contributed to his ASL fluency. However, he struggles with low literacy

skills. He reads and writes at an early second grade level. He appears unmotivated and has a low self-esteem when it comes to literacy.

4. **JI** is a thirteen year old girl in the seventh grade. She has deaf parents and a deaf brother who is also a student at WSD. Her mother occasionally volunteers at the school. She has full communication access at home and has attended WSD since an early age. The only girl in the class, she stands out as the smartest in the class with strong literacy skills. An avid reader, she reads and writes at the sixth to seventh grade level. She is a very motivated student and always thrives for more.

5. **JT** is a fifteen year old boy in the eighth grade. He has a deaf brother and a deaf uncle. Despite deaf relatives, he does not have much communication access at home. He lives in the countryside and is often left to fend for himself. Despite attending WSD at a young age, he has issues at home and continues to be a problem student at the school. He hates academics and reading, and as a consequence his literacy skills have suffered. He reads and writes at the second grade level. However, he is in fact a very bright student who is capable of critical thinking and is fluent in ASL. He is also an extraordinary athlete who just needs proper guidance and motivation in order to excel in school.

The Implementation

Lesson 1.1 - Technology 101 (April 29, 2014)

In preparation for the first lesson of my curriculum implementation, I set up the projector, laptop, and overhead before class began. I pulled together the two tables so the students would be able to sit in an "U" formation and I made copies of the worksheets for the students. Lastly, I double-checked the google image search of "technology" to ensure what exactly my students would see in class. Everything looked good so I waited eagerly for the students to show up. Four out of five students showed up.

Once the students filled in their seats, we were off to the races! I introduced the lesson by explaining what the "101" in Technology 101 meant. I told the students that "101" was frequently used as a primer, or an "introductory" course in college. Next, I wrote "technology" on the whiteboard and asked the students to explain what the term meant to them. JI signed "things that are man-made", and JT signed "things that help us and makes our lives easier". I was impressed with their answers, so I went on to ask them to give examples of technology. They said smartphones, tablets, computers, smartboards, wifi, cars, videophones, guns, and several others. I wrote/drew images of their examples on the whiteboard (Figure 1.1) and and reinforced their answers by asking the other students if they agreed with the example before writing it.

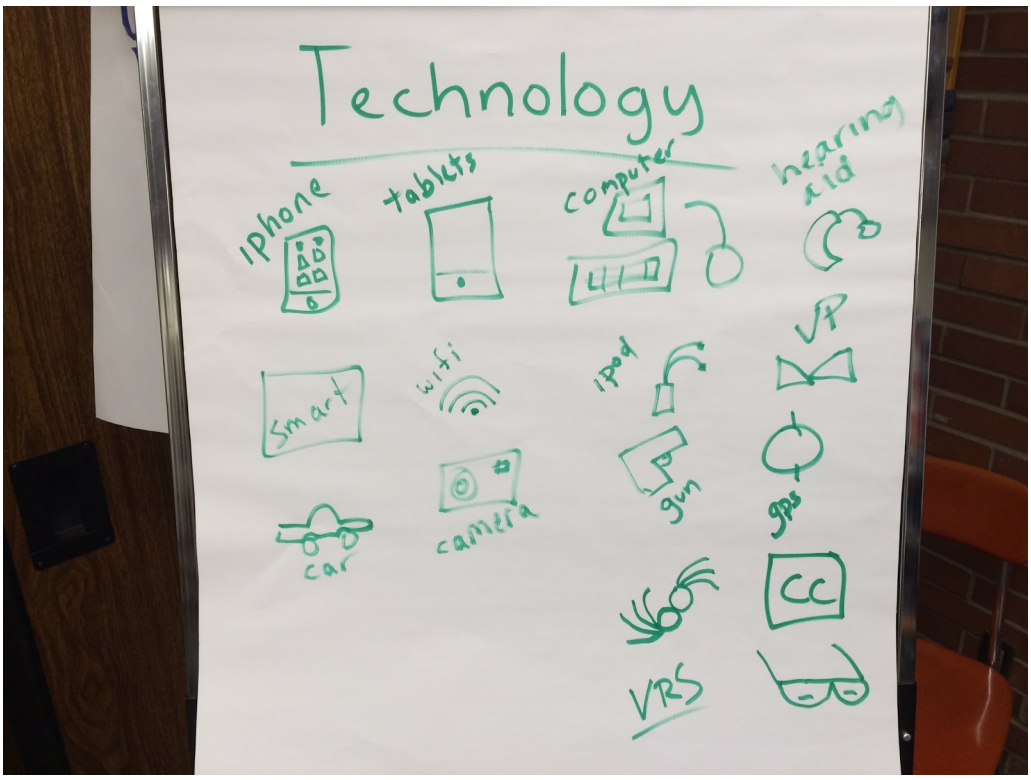
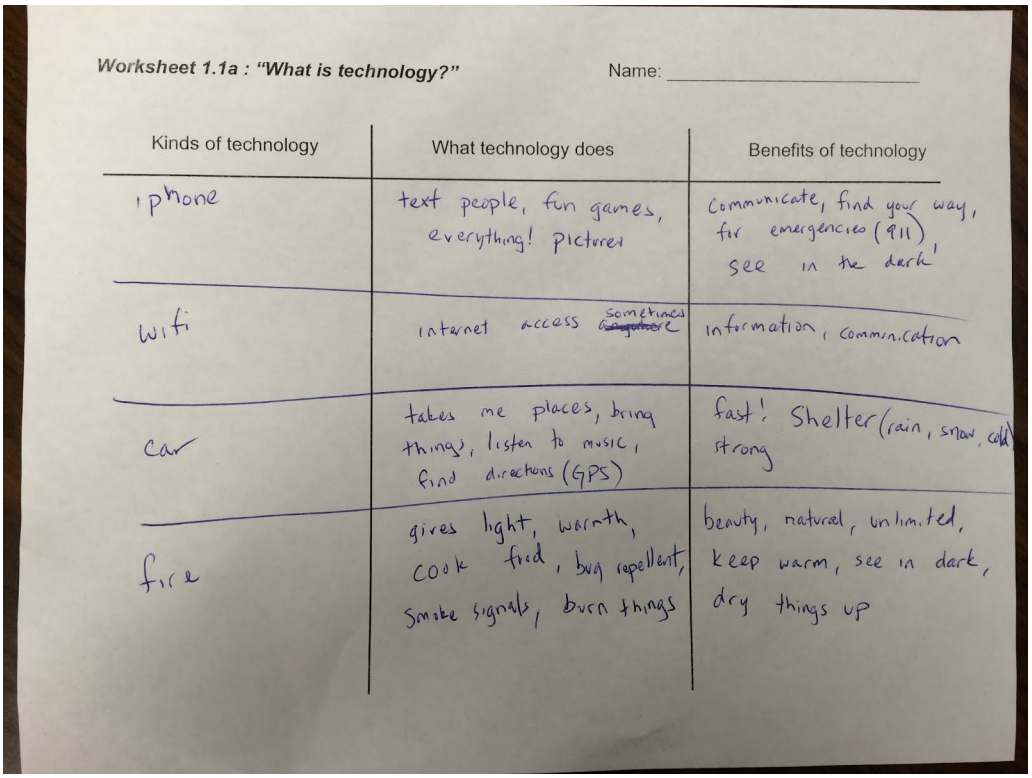


Figure 1.1: Brainstorming Technology.

JB then suggested that "fire" was technology so I engaged the class into a discussion to determine whether it was true. Some students disagreed, because fire was natural and not man-made. Other students felt that fire was used as a tool, so it was technology. To quench their curiosity, I pulled up "technology" on Wikipedia for the students to see. It listed fire as an early technological advancement. The nay-sayers then changed their minds and agreed that it could be considered technology.

I then displayed worksheet 1.1a- "What is technology" (see Appendix A) on the overhead and read aloud the text. I explained what was expected for each column. I wrote the first example for the students and read it aloud for them to scaffold their understanding. The students picked up on the task quickly and began raising their

hands to provide answers. As the student provided ASL descriptions, I translated them into English and wrote the text into the respective column. We listed four examples along with their purposes and benefits. As soon as we finished the worksheet together (Figure 1.2), we moved on.



Worksheet 1.1a : "What is technology?" Name: _____

Kinds of technology	What technology does	Benefits of technology
iphone	text people, fun games, everything! pictures	communicate, find your way, for emergencies (911), see in the dark
wifi	internet access sometimes ~~everywhere~~	information, communication
car	takes me places, bring things, listen to music, find directions (GPS)	fast! Shelter (rain, snow, cold) strong
fire	gives light, warmth, cook food, bug repellent, smoke signals, burn things	beauty, natural, unlimited, keep warm, see in dark, dry things up

Figure 1.2: "What is technology?" Worksheet.

For the next activity, I placed worksheet 1.1b- "Technology for the deaf" (see Appendix A) on the overhead and told the students that this worksheet was similar to the last one, only oriented towards technology made for deaf people. I told the

students that they would compile the worksheet individually and asked if they had any questions. The students said no, and were eager to begin. I told the students that they would pair up for 5 minutes and discuss ideas for the worksheet. I put TJ with JT and JI with JS. I modeled think-pair-share by asking TJ to volunteer and demonstrate TPS with me as the other students watched. Next, they engaged into TPS discussions with their partner.

As soon as 5 minutes were up, I passed out worksheet 1.1b (see Appendix A) to the students and told them to list four examples on their worksheet. I walked around observing the students while they compiled their worksheets. The students stayed on task until they completed their work.

When all students completed their work, I redirected their attention to me and drew a "t-chart" on the whiteboard. On one column, I wrote "Then" and "Now" on another. I asked the students what the sign for "then" was and some used the traditional "then" sign, but I told the students that in this case, the sign for "then" was the same as "past" and "now" was the same as "present". I asked the students to provide examples of technology that has improved over time. There was no shortage of ideas, as all four hands shot up. I drew/wrote down their examples while they laughed at my drawing skills (Figure 1.3). I also provided several examples they did not think of, such as "messenger birds" and "pony express" as an early form of sending messages. The students evidently understood the meaning of evolving technology so I moved on to the next activity.

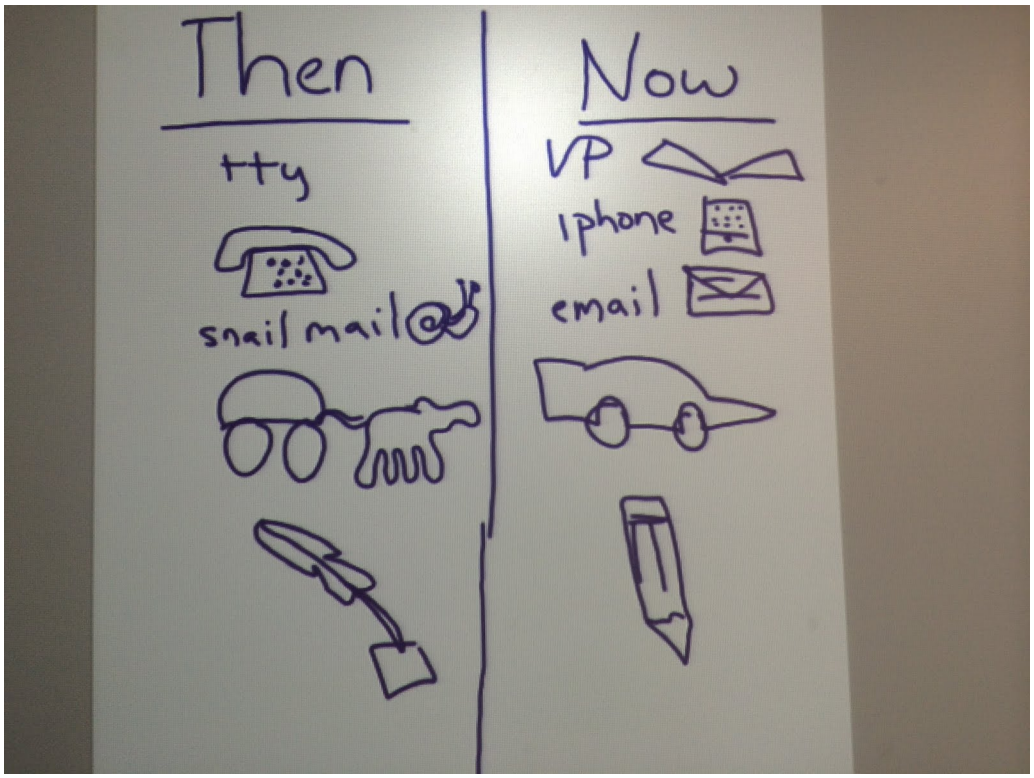


Figure 1.3: Then and Now T-Chart

For the final activity, I placed worksheet 1.1c- "Technology in the future" (see Appendix A) on the overhead. I explained to the students that they would be predicting what kind of technology would be readily available in the future. I asked the students if they could come up with some examples. Some of the examples were a flying car, human teleporter and phone holograms. I then provided directions for this activity and told the students that they would share their work with the class at the end of the activity.

I then passed out the worksheets and colored pencils so the students could begin their work. The students liked this activity the best, because it allowed them the opportunity to be creative with their ideas and artwork. They stayed on point in this

task until completion. The students were eager to share with the rest of the class. As soon as they finished, I asked for a volunteer to come share with the class. JT's hand shot up really quick, so I let him go first. All the students gave detailed descriptions of their ideas.

For the closure, I congratulated the students on successfully completing my technology 101 course! I told them that this was my first lesson as a teacher, so their feedback would be extremely helpful. I asked them if they enjoyed the lesson. All four gave me a thumbs up. JB mentioned that he enjoyed learning- "I learned about holograms, I never knew it was possible". I asked whether they already knew the material I taught in my lesson, and most of them said that they already knew some things but that they learned new things too. I asked what changes I could have made to the lesson to make it more enjoyable, and they said that they wouldn't change a thing. Although I was not able to extract more specific feedback from them, their comments solidified any trepidations about the lesson sequence.

Final Notes: I made some changes to the lesson plan on the go- I decided that the students would only be filling out one three-chart worksheet, instead of two. The students seemed to be restless, so I decided to reinforce student responses by writing them down on the worksheet while they helped fill in the blanks. I decided that they would only write in the second worksheet. I felt that there was no point in exhausting the students the first time around by making them copy the text on their worksheets. I feared they would lose motivation and refuse to work if they had to do two. Because of this change, I had the students do the Think-Pair-Share (TPS) activity prior to the

second worksheet instead of the first. I think this decision helped keep the students reeled in and held their attention for the entire duration of the lesson.

Lesson 1.2 - The Internet (May 1st, 2014)

In preparation for the second lesson, I made copies of the worksheets, set up the projector, laptop, and overhead before class started. Once again, I pulled together the two tables so students would be able to sit in an ASL-friendly "U" formation.

All five students participated in this lesson. I started off this lesson by asking the students what the "internet" meant. Several hands were raised and they proceeded to bust out a plethora of items that the internet contains. Several examples included youtube, facebook, myspace, twitter, search engines, email, websites, shopping, information, video and text chat, and games. I noticed that they did not attempt to define the internet but instead provided examples (See Figure 1.4). I decided to ask them what the term, "internet" meant to them. JI replied with "Many online connections of different things". I asked what she meant by "things" and she said she was not sure. I told the class that JI's answer was very close. I explained that the accurate word for "things" was computers, as it meant a million of computers around the world all connected.

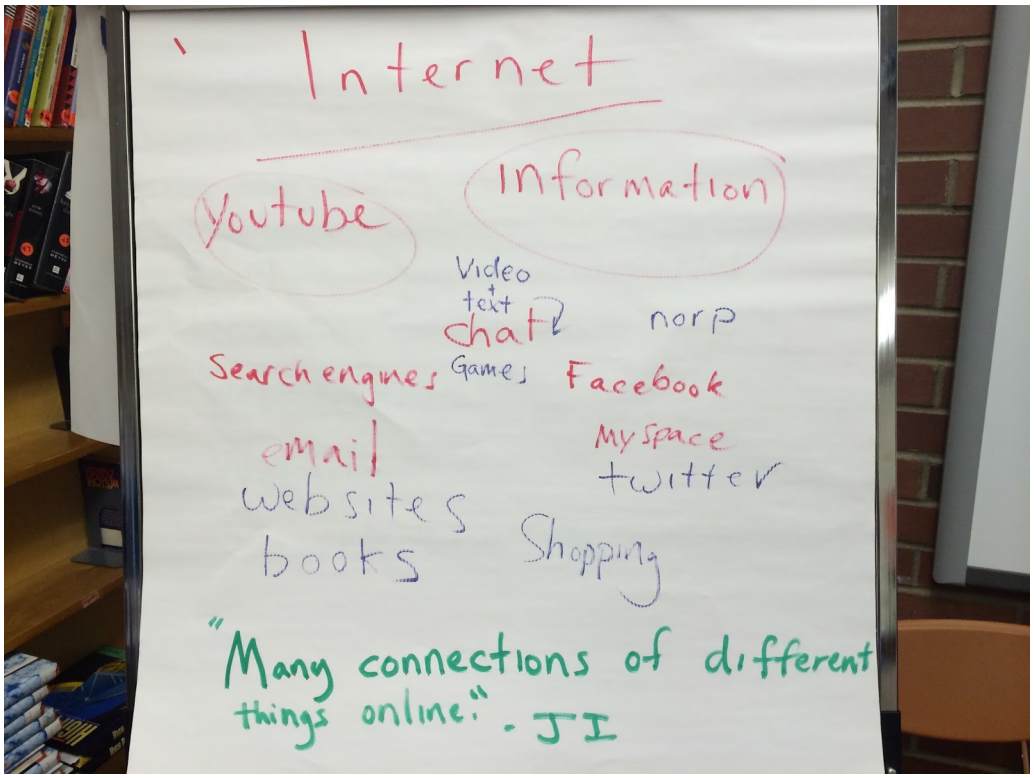


Figure 1.4: Defining the "Internet".

I then told the students that they would be doing an activity that consisted of drawing. I told them that they had a time limit of 5 minutes to compose their drawings. I told them to draw the "internet", as hard as it may seem, to try their best to visualize what the internet would look like if they drew it. I told them that I would pull up google image search of the "internet" to see if their drawings shared some things in common. To my surprise, most of them drew a web connecting different things that were found on the internet and they also drew a satellite that would help transmit information over the internet. Most of their drawings demonstrated an understanding of the term.

After the activity, I pulled up google image search of the “internet” and scrolled through different examples of the internet which gave the students a better idea of how their work compared with the images. I then introduced the “WWW” and asked them what the word meant, and whether it was the same thing as the internet. The students said no, that it was not like the internet. They gave pretty accurate answers stating that the www consisted of websites such as facebook, google, youtube and so on. I asked the to define the acronym, “WWW” and the students answered correctly, they said- “world wide web”. I explained that the “WWW” is just one part of the internet that contains websites and webpages that contain information.

Moving on, I asked the students to show me how they would access the internet. I told them they could use my computer to demonstrate. CM proceeded to sit in my seat and clicked on the “Safari” icon on the computer. I asked the students what that icon was for. JS said that it was used to access the internet. I asked him what the “Safari” icon was called. He shrugged. I asked the other students if they could use other icons to access the internet. They answered with chrome, firefox and internet explorer. I asked them what these tools were called. They didn’t respond. I told them it starts with “b------” and they instantly responded with “browser”. Good. I pulled up youtube and showed them a video made by Google titled “What is a browser” and asked CM to interpret the message from the video. He did a great job imitating the sequence of events on the video. Since the students clearly understood the purpose of the browser, I moved on to defining “website” and “web address”. I added the words on the whiteboard along with the other words I already listed- computer, internet,

www, browser, website, web address. TJ raised his hand and explained website clearly. He said, “websites are where you look to find information”. He then listed several website examples such as facebook, myspace, and youtube. I told him he was accurate.

I proceeded to ask what “web address” meant. They were at a loss of words. I tried providing them with a metaphor by using “address”. I asked them why they needed a home address. They said that it was used to find a person’s house. I asked them to apply that thinking to the world wide web. JI said, “to find a website?” I replied with yes, an web address will help you find a particular website. I asked them to provide an example of a web address. JT said, “Google.com”! I told him he was correct and that google.com was an example of a web address. I then used his example to transition to the next vocabulary term, which was “search engine” and pulled up google.com then pointed to the search box. I asked the students what the search box does. JT said it was used to search for things on the internet. I told him yes, and asked them for a search suggestion. TJ suggested “xbox” so I typed it in and tapped enter. I told them that a search has many results, and showed them that “xbox” had 199 million results and that I would teach them how to narrow down the results in a future lesson.

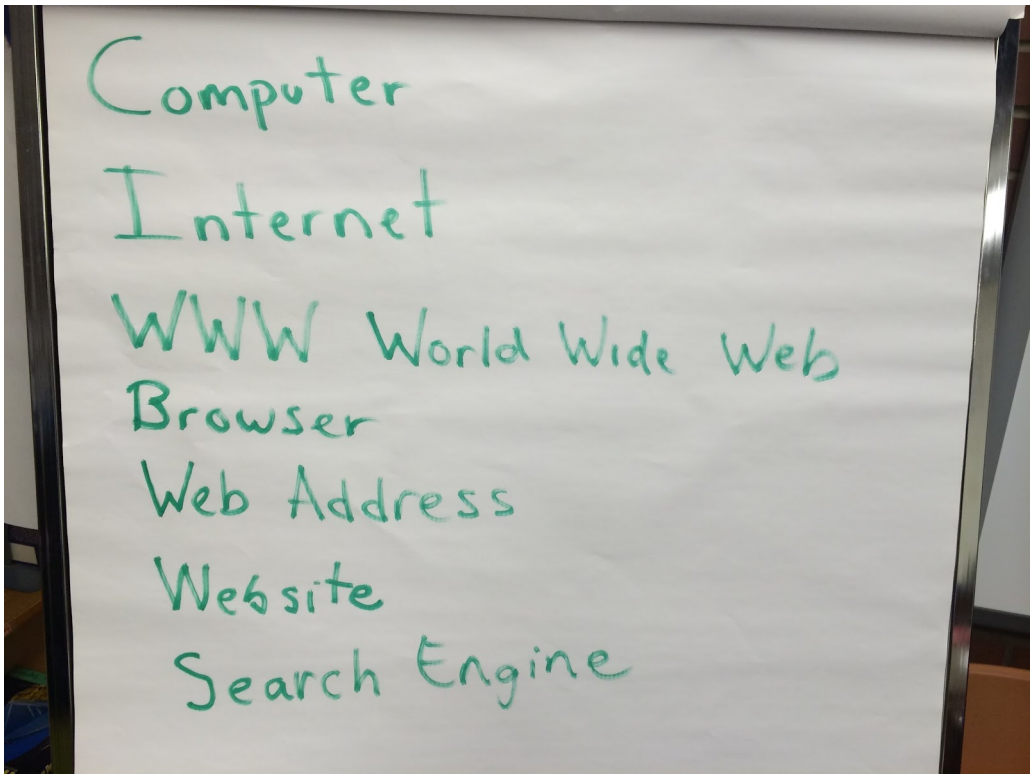


Figure 1.5: New Vocabulary Terms.

I congratulated the students for doing a great job in the lesson thus far, and that they would all be working together on a project, which was to create a poster consisting of the 7 vocabulary terms they learned (see Figure 1.5). I placed Worksheet 1.2 "Making a poster" (see Appendix A) on the overhead and provided directions in ASL. I explained to the students that each one of them would be assigned a role for the project and that they had to discuss amongst themselves to determine who does what. To my surprise, the students quickly picked out their roles from the list and there was no disagreement or fighting over a certain role. Interestingly, the students took roles that they strongly felt they were good at and they stuck to it. It was cool watching them working together as a team, although there were some disagreements on how the

poster would be designed. I stood by and observed as they worked on resolving their issues and they did. I also instructed the leader, TJ to keep everyone on their toes and make sure they do their job. I also asked him to act as an mediator to resolve any disagreements or conflicts. The students did a great job, however at the end JB started losing interest and began walking around the classroom (because his work as an researcher was done). I told him that if he finished his part, he could assist others but he was not interested in doing that. The poster turned out better than I had expected, although it took longer than expected. I gave them a timeframe but they were set on making the poster perfect, which took more time.

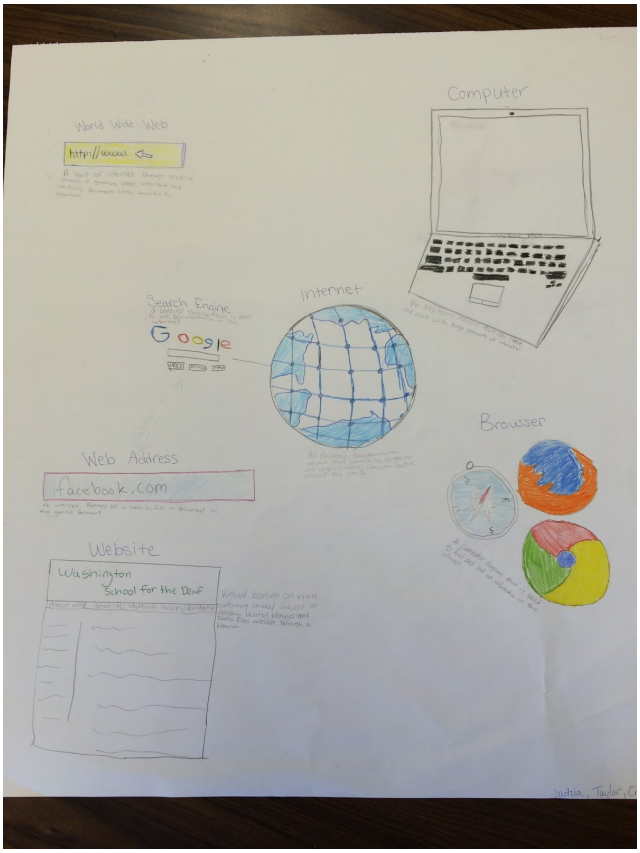


Figure 1.6: Vocabulary Poster #1

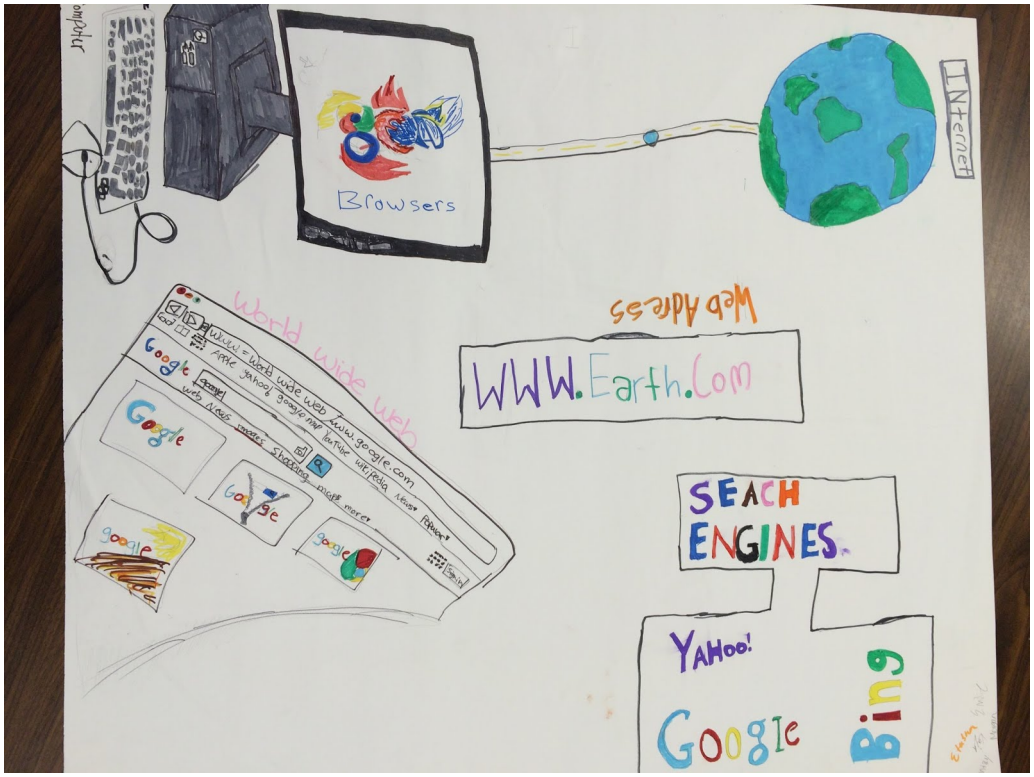


Figure 1.7: Vocabulary Poster #2

I congratulated them on finishing their work, and told them that the poster (Figure 1.6, 1.7) would be displayed in the hallway outside the classroom for others to see. I then proceeded to the closure and asked the students if they enjoyed the activity. JS said he enjoyed working on the poster but not the beginning of the lesson. TJ chimed in and said the beginning of the lesson wasn't too bad. JI said "but I learned something!" I asked the others besides JI if they learned something new. They nodded their heads, so I asked what it was exactly that they learned. TJ said "browser" and CM said "web address". I asked them if I could make any changes to the lesson, and

JS said “the beginning could have been shorter”. I asked him why he thought that and he shrugged. I thanked them for their feedback and concluded the lesson.

Final Notes: I made some changes to the lesson right before it started. I decided to write down a list of roles and their definitions. I felt that assigning roles would aid students in their progression towards the completion of the poster. After the lesson, I reflected on this decision and realized that it would be much more difficult if the students did not have any roles to hold them responsible for their “expected contribution” to the project. I felt that the roles helped the students stay on track and work together as a team. Overall, I think this lesson was successful and we had a beautiful poster to show for our work at the end of the lesson.

Lesson 1.3 - Search Engines (May 2nd, 2014)

Prior to the lesson, I made minor revisions to the worksheets, then printed out copies for the students. I also set up the projector, laptop, and overhead. The two front tables were coupled together so students would be able to sit in a “U” formation. Only three out of five students were able to participate in this lesson, the other two (which were the top students) were gone on a field trip. Because the class dynamics changed, I determined that I would adjust the lesson to provide more scaffolding to the 3 students- considering that these students needed more support.

I started off the lesson by telling the students what they would be doing in this lesson. (By knowing the plan for the lesson, the students appear more motivated). I

told them that we would be learning about search engines and that after a brief tutorial we would be going to the computer lab to do some applied work.

I asked the students what a search engine meant. The general consensus among the students was that search engines would help you find anything off the internet. I asked for examples, and they responded with Google, Bing, Yahoo, and Ask. I told them they were right, and that a search engine is basically an engine that sends spiders to crawl through the web and search for certain keywords to add to the results. I asked them if they understood my description, and they nodded in agreement.

I pulled up www.google.com on the projector, and asked the students to suggest a search query. JT suggested "dog" so I typed in "dog". After the results loaded, I showed the students the basic components of each result. I used the chaining technique to define the title, web address, and snippet of the result. I then wrote www.google.com on the whiteboard and asked the students what ".COM" meant. They didn't know. I asked the students if they saw different domain types before. Some students said yes, some said no. TJ said he saw ".NET" before. I told them that there were many different domain types and they could help them identify the type of website they were looking at. I wrote down .ORG, .EDU, .GOV and explained the difference between these domain types (see Figure 1.8).

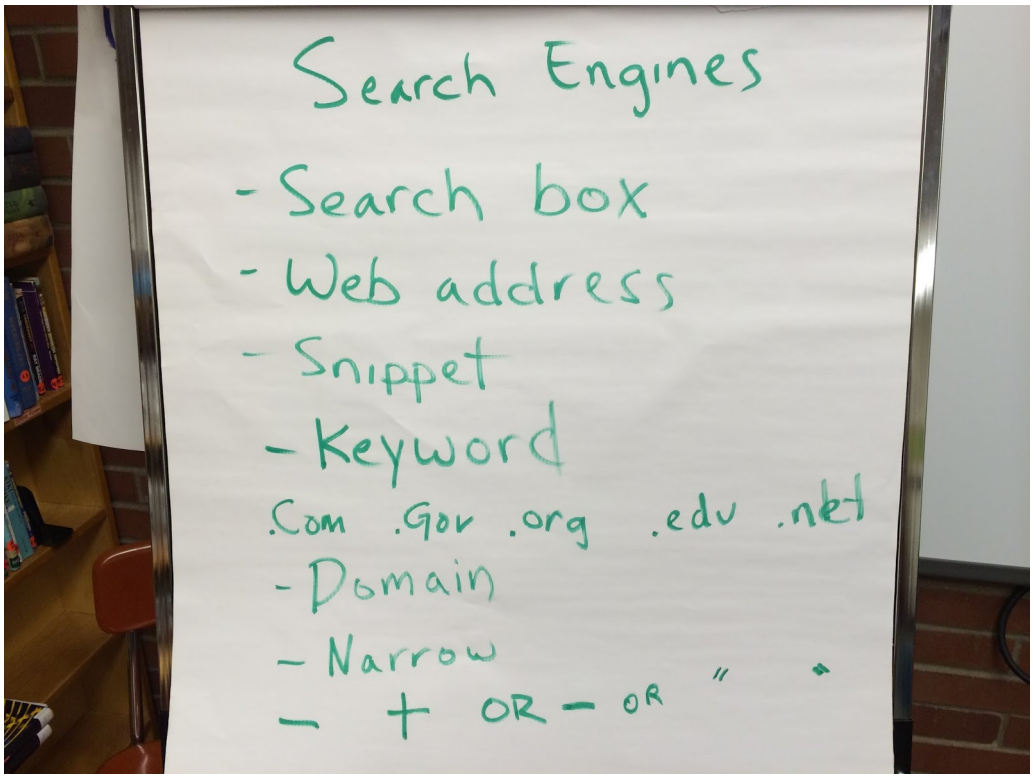


Figure 1.8: Search Engine Terminology.

Next, I returned to the Google search results of "dog". I pointed to the search tools on top of the page, under the search box. I asked the students what they were used for. The students said it was used to find pictures and videos. I told them yes, these are two of many search tools. I defined the other tools in the row and showed them what they were for and how they were used. I demonstrated the advanced image search and told them that it would help them narrow down their image search to the specific size they wanted.

I asked the students what we type in the search box. They responded with "any words" and I asked what kind of words they were. TJ said "keywords" I was surprised he knew the correct vocabulary term. I explained why it was called a KEYword. I told

the students that they could use the autocomplete feature if they weren't sure how to spell a certain keyword or if they needed to find more fitting keywords for a certain search. Since I already explained about the autocomplete feature in the previous lesson, I did not go into detail this time since the students were ready to move on.

I signed the word for "focus", which was the same sign used for "narrowing down" and asked the students what the English word was for this sign. They shook their heads in unison. I told them that the word was called "narrow" and that they could narrow down their search results by using different kinds of commands. I provided examples such as "quotation marks", (+) symbol, and (-) symbol. I then defined the function and purpose for each of the commands. I provided demonstrations on Google and the students were like "oh!"

That marked the end of the mini search engine tutorial. I told the students that we would be going to the computer lab shortly to explore search engines. I placed worksheet 1.3 on the overhead and went through the prompts with the students. I thoroughly ensured that they understood every stop and answered any questions that they had. I then placed rubric 1.3 for the VLOG on the overhead. I explained the grading criteria on the VLOG and told them to follow the directions listed on their worksheet in order to receive a good grade on their VLOG. When the students were ready, I passed out the worksheets and sent them to the computer lab.

In the computer lab, I walked around and observed the students as they proceeded to follow the directions listed on the worksheet. Some students were unsure about several prompts so I clarified in ASL for them. I reminded the students to take

their work seriously. JS finished quickly so I sent him back to the classroom with the teacher assistant to help him plan for his VLOG. A few interesting things happened here. JT was thrilled to use the commands he learned, and enthusiastically experimented with the commands to narrow down the search results of his name. He was amazed to find old pictures, videos, and comments that he made on the internet years ago. However, TJ was not as successful. He became frustrated when the commands did not help narrow down the search results and he was not able to find exactly what he wanted to look for. I tried to assist him by creating different combinations of commands, but he said that the results were not what he wanted. After they finished their worksheets in the computer lab, I sent them back to the classroom to document their VLOGs on the Mac laptops. I reminded them to follow the VLOG guidelines and they did. Their VLOGs turned out great. The lesson took the entire duration of the class and I was not able to perform the closure. I was satisfied because their worksheet and VLOG served as the closure.

Final Notes: This lesson was relatively easy to manage, considering there were only three students. They were also very enthusiastic about searching for certain things on the internet, and helped engage them into the lesson. I really liked this lesson and thought that the students learned a lot that would benefit them in the future inside and outside of the classroom. I also appreciated the VLOG because they were able to answer the prompts with more detail in ASL than if they wrote them down in English. The lesson plan also did not include how the vocabulary words would be presented. I wrote them down on the whiteboard whenever I taught them a new word.

Lesson 2.1 - Email 103 (May 7th, 2014)

Prior to the lesson, I printed out copies of the Gmail workbook for the students. I also went to the computer lab to set up the laptop with the smartboard. I was quite nervous about this lesson because I felt that there were a multitude of things that could go wrong. I also set up my Gmail account and considered all factors that might affect the progression of my lesson. Because the students would be setting up their own email accounts, I wrote up a permission slip for the students to bring home and have their parents sign. Fortunately, all five of the students in the class brought back signed permission slips (see Appendix A).

As the students gathered in the classroom, they were eager to know what they would be doing in class that day. I proceeded to brief the students- that we would have a discussion before heading to the computer lab. I explained the topic of the lesson, "Email 103" and then proceeded to the introduction of the lesson. I asked the students if they already have an email account. All of the students' hands were raised. I asked which email program they used, and they all said Gmail. JS said he also had an Yahoo account. I asked which account he liked better. He said he liked Gmail but stopped using it since he forgot his password. I asked the students what they liked/disliked about email. TJ mentioned he was sick of getting spam emails. JI mentioned that she thought email was useful because she was able to keep in touch with her friends. I explained that email was a giant step towards equitable communication access for the deaf. I asked what they wanted to learn about email, and CM said he wanted to learn how to block spam emails. I told the class I could teach them how to screen spam

mail. I then explained why I chose Gmail as the email provider. Finally, I told the students that they would be going to the computer lab and if they wanted to participate, they would need to follow my two rules for the computer lab. I hoped that these rules would set expectations for the students' behavior. Afterwards, I sent the students to the computer lab.

Once they were seated, I asked them to face the smartboard away from their computers. I gave a brief demonstration on how to create an account. I showed them the procedure and while I was going through the steps, I brought up several subjects that I wanted to discuss. This included the parts of an email address (i.e., firstnamelastname@gmail.com), choosing an email address, what a professional email address looks like, password ideas and suggestions. These were critical issues that needed to be covered before the students created their email accounts. After discussing the following, I had students proceed filling out the online form. I instructed the students to raise their hand and check with me before submitting their form. Almost all of the students (besides JT) followed directions, chose professional usernames and strong passwords. I approved of all their submissions and told them to wait until the others finished.

When all the students were finished, I flashed the lights to get their attention. One student, JT refused to look at me and chose to go off task on Gmail. I had to tap him on the shoulder, told him to wait and that I had something to share before they could explore Gmail. JT refused to look at me and I told him that if he refused to follow directions he could leave the class but that he would be missing out. He

promptly got up and left the class. I had to send the teacher aide after him. I had the teacher aide watch him in my classroom. This was an unexpected response from JT, but it turns out he had a heated discussion with another teacher in a previous class and he decided to take it out on me. If I had known, I might have approached the situation differently, but that was a learning experience for me. I was quite disappointed that he would miss the lesson because I know he would have benefited from it, but that student was a work in progress.

With only 4 students remaining, I proceeded to demonstrate how they could change their "nicknames" on Gmail so that when they sent an email, the "receiver" would be able to see their full name displayed neatly as the sender. After the demonstration, I told the students to go ahead and change their nickname. However, some students couldn't navigate and find the form to change their nickname, because Google plus (Google+) was interfering and persuading them to set up their profiles. That was an unexpected occurrence, so I had to flash the lights once again to get the students attention. I explained that when they signed up for a Gmail account, Google automatically created a Google+ account for them. I explained that Google+ was used as a social media tool and that it was similar to a Facebook profile. I told them that they should remove their Google+ profile because it was irrelevant to the lesson and that they were to focus on Gmail only. I demonstrated how to access their Google account settings and remove their Google+ profiles. All the students removed their Google+ profile without any issues, which was a relief to me.

Next, I demonstrated how to navigate Gmail by showing them how to compose an email, check their inbox, check their sent mail, delete messages, mark messages as spam, along with other features. As I composed an email to the students, they watched my every move intently. I explained that they are to include the four parts of a formal letter. I asked the students to remind me what the four parts were. I told them that they are to include the four parts in ALL emails. One by one, the students gave me a part. I wrote the four parts on the whiteboard to serve as a visual reminder.

The students then proceeded to compose an email while I walked around and provided support.

After they sent their email to me, I flashed the lights and got their attention. I explained that we would be learning how to create contacts and contact groups in the next section. I asked the students what contacts were for, and how they were used. I showed them how to navigate the contacts tab and how they could manually add contacts. I asked the students why people used contacts. TP said "Contacts help people remember email addresses so they don't forget!" JI said, "Look! My contact page already has your contact but I didn't add it yet. How did it get there?" I explained that If they sent an email or replied to an email, the contact would automatically be added to the contact list. I told the students to proceed and reply to my message, and see if my contact got added to their list. CM said, "Yes, it works!" I told the students to go ahead and add the other students email addresses to their contacts.

After they finished, I got their attention and asked them how I would go about sending an email to all of the students. TP said, "You just type in all the students

email addresses". I responded by asking if there was a faster way to do this. The students looked at each other and shrugged. I told them that there was a faster way and that it was called a contact group. I asked if they knew what a contact group was. JS said, "A group of all contacts". I said yes, you can create a specific list of contacts as a group. I proceeded to demonstrate creating a contact group with all their email addresses and naming the group "Mr. Herbold's Class". I then sent them an email using the contact group. I asked them if it was faster than adding each email address manually. They all said "Yeah!" I told the students to proceed and send an email to the contact group. After we all got bombarded by group emails, I told the students to drop everything and face me for one last tutorial.

I proceeded to the next section- adding attachments to emails. I demonstrated searching for an image on the internet, saving the image, and attaching it to an email. I outlined each of the steps for the students. I told them to proceed and practice sending me an email with an attachment. The students breezed through this section, because it was relatively straightforward.

Moving forward, I gathered the students attention and discussed the importance of signing out of their Gmail accounts. I asked why it was important to log out. CM said, "So that somebody else doesn't use your email account. TP chimed in, "So nobody can hack into your account!" I explained that it was important to keep their accounts private, because they might have some personal data that they should keep private. I told them that we would be continuing the lesson in the next class and

that we would be returning to the classroom now. I told them to proceed signing out of their accounts and shutdown the computers.

After we returned to the classroom, there was insufficient time for a closure, so I saved the section for the next class.

In the next class, I was disappointed to learn that there were only three students attending class that day. I continued the lesson by implementing the final activity, where the students were to discuss the reasons for using email. We discussed the benefits of email and how it was different than other forms of communication. We also discussed the advantages and disadvantages of using email. Lastly, we discussed email etiquette and how to keep their emails private.

Because I felt that this lesson did not provide me with an assessment of student learning, I decided to develop an assessment for students to perform instead of having them compile a VLOG as originally planned in the lesson plan. I skipped the VLOG activity and decided to assess their understanding of the lesson by having them send two emails to me, which I would evaluate and determine what they learned. In order to do this, I developed worksheets 2.1a & 2.1b (see Appendix A) to help guide students in completing their assessments. Before passing out the worksheets, I explained them on the overhead, with the first consisting directions and the second consisting a sample email to scaffold their understanding. After providing directions for their assessment, I answered student questions and made clarifications. I reminded the students to read the worksheets carefully and to follow directions. I then passed around the worksheets

and told them to proceed with their assessment. I walked around the classroom and observed the students as they worked (see Figure 2.1).

Figure 2.1: Students on Gmail.

Final Notes: The students really enjoyed doing this lesson. I strongly feel that this lesson was very educational and benefited my students. This lesson was also tough at times, because there was some confusion in navigating the internet and the pop-up screens on Gmail. Besides that, the students were on task and motivated to work. I also felt that developing and conducting the final assessment rather than the vlog was a great decision. This reassured me that the lesson was successful and provided students with more independent practice using email.

Lesson 2.2 - Google Docs / Drive (May 16th, 2014)

In preparation for this lesson, I reserved the computer lab in advance and created a Google Presentation document template for the students to use. I set up the laptop on the projector right before the students came to class. I was thrilled that all five students were present for the lesson.

I started the lesson by diving into the introduction and blasting the students with discussion questions. I asked the students if they were familiar with Google Drive and/or Google Docs. The students indicated no knowledge of both. I then asked those who have used Microsoft Word or PowerPoint previously to please raise their hands. Every hand in the class went up. I explained that Google Docs is similar to MS Word, and the only difference is that it is stored in the "cloud" (accessible wherever there is an internet connection) and that it is collaborative (ASL: COOPERATE). Documents can be shared with other students or people. There were no further questions from the students, so I proceeded to the next step.

After the introduction, I told the students that they would be going to the computer lab to work on a collaborative project in Google Docs. Since I had issues getting the students attention in the computer lab during the previous lessons, I decided to set expectations for the students. I told them that they had to follow TWO important rules. 1) When lights flash, drop everything and face the teacher. 2) Follow directions, do not go off task. I explained that I would turn the lights off for approximately five seconds, and that they have to redirect their attention towards me

before I turned the light back on. I asked JS to explain the first rule to the class. He described the first rule articulately, so I gave the students permission to head to the computer lab.

In the computer lab, I had the students face the SMART board away from the computers. I explained that I would demonstrate how to navigate Google Drive and Docs. I modeled the steps involved with the lesson. I proceeded to open the Google Presentation document and showed the students all 10 slides (which had names listed on each). I provided directions for the assignment and directed them towards their objective. One out of the 10 slides was my slide, decorated and complete with pictures and text of the word "definition". I told them that this was a "sample" slide and that this was what was expected of them. After the demonstration, I decided to "share" the Google Presentation document with the students as they watched. The original plan was to share with students prior to class, but I felt that by modeling it in class would help scaffold their future use of the "share" feature. After each demonstration, I consistently asked the students if they had any questions, but the answer was usually no. I reminded the students of plagiarism and the proper way to write in their own words. I also reminded them that they would be presenting their slide to the class after they complete their work.

Figure 2.2: Editing a Slide in Google Presentation.

As I walked around and observed students working on their slides (see Figure 2.2), TJ asked me what would happen if he deleted the slides. I told him to go ahead and see what happens. So he deleted them, and the other students looked up from their computers and said, “the slides are gone!” I smiled and flashed the lights to get their attention. I explained to the other students what had just happened. That TJ had just deleted the slides. I asked them whether they thought I could fix it. JI said, “No way! It’s gone now!” I told them that Google Drive has an awesome feature that allows you to track the history of revisions made by an individual. I navigated to the “revision history” which showed that TJ made the latest revision, which was to delete the slides. I showed them how to return the document to the way it was before the revision made

by TJ. The students ooh-ed and ahh-ed and got back to work. As I walked around observing students, I noticed that most of them were not very motivated to do definition research of their vocabulary word. Instead, they directed most of their focus towards decorating the background, text, and locating photos to paste into their slides. The students completed their slides in approximately 45 minutes (see Figure 2.3). I flashed the lights and congratulated the students for their hard work. I asked them to please log out of their computers and move their seats to face the SMART board. After they were seated, I told them I was looking forward to seeing their presentation. I then pulled up their Google Presentation document and proceeded to the first slide (which was the sample slide of "definition"). I modeled presenting the slide, explaining the text and pictures to the students. I figured this would help scaffold them in preparation for their turn. I moved on to the next slide, and the students took over while I sat by and graded their presentations using a clipboard with the 2.2 performance assessment rubrics (see Appendix A).

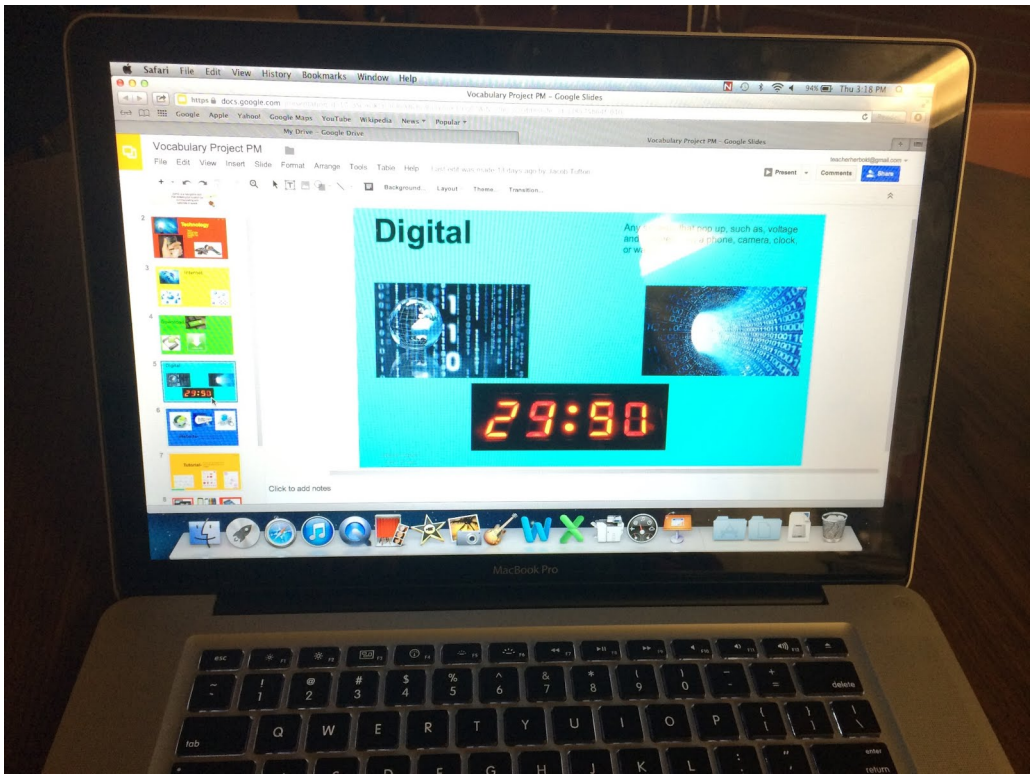


Figure 2.3: Google Presentation Final Product.

After their presentations, I congratulated them for doing a fantastic job. I told the students that this concluded the lesson. I told the students that I wanted to know whether they enjoyed the lesson, and why? JS raised his hand and said, “I like being able to see other students’ work in real-time and watching them as they make revisions”. JI said, “I like Google Presentation because I am able to learn as I do, and it automatically saves my work so I don’t lose it when the computer crashes”. TJ said, “I like the revision history! It allows you to spy on the other students!” I then asked, “Do you think you will use Google apps in the future?” and the answer was an unanimous yes.

Final Notes: I decided to make a few changes throughout the lesson. Firstly, I decided to "share" the file with students during class. I also prepared a sample slide to share with the class to scaffold their learning. Prior to the presentation, I also modeled presenting the sample slide before the students did their presentations. Throughout the lesson, I learned that it would be good to demonstrate to the students how I "think" and the steps I take in completing a vocabulary slide. I felt that it would assist in their process of developing a slide. I also realized that I should have shared the rubric with the students prior to the presentation, which would help set expectations in the first place.

Lesson 3.1 - Capstone Project (May 20-23, 2014)

In this final lesson, the students did their capstone project. The lesson had three major components and took four classes to complete. The first class focuses on choosing a topic. The second class focuses on the topic research and creating a presentation. The third class focuses on students showcasing their work by giving a presentation to the class. In preparation for the capstone project, Reservations for the computer lab were made at least a week in advance. A sample Google presentation document was created to share with the students in order to scaffold their progress and expectations of this project. Prior to the first lesson, I prepared copies of the topic and research worksheets.

I started off the lesson by introducing the students to their final capstone project. I told the students that they would be conducting a research project and then

sharing their work with the class through a presentation. Before going into detail on the capstone project, I asked the students what a "research project" meant. CM signed "a research project means doing research!" I then asked what "research" meant. JI responded with "finding information about a specific topic". I nodded and supported her answer by repeating what she said. I then asked the students how they would be conducting research for this project. TJ replied with "on the computer in the internet". Right, so I proceeded to sign "plagiarism" and asked the students if they knew what it meant. The class went quiet for a minute, then JI said "Copying something exactly into your work". I told her that she gave a great answer. I then asked the students what the proper way to do research was. The students didn't come up with any answers, so I got on the computer (connected to the projector) and demonstrated conducting research to the students and saying out loud what I was thinking when I rewrote the research in my own words. I then demonstrated copying and pasting text and asked them if this was acceptable. The students all shook their heads and said no. I explained that what I just did was called plagiarism.

I then explained the timeline and procedure of the project with the students. I told them that they would have to come up with a topic for their project. I explained that the topic should be something that they think is important to share. I then asked the students what it means when someone asks them "what's important to you?" I got no response from the students, so I decided to ask them to come up with some examples of what was important to them. The students were silent. I decided to kickstart things by providing an example of what was important to me. I told the

students that endangered animals were important, and that I strongly felt that we should save them from extinction. I asked the students if they had any other examples. JS raised his hand and said “recycling is important”. I reinforced his answer by saying that it was indeed an important topic. I told the students that I had more examples of important topics and placed Worksheet 3.1: Final Project Topic (see Appendix A) on the overhead. I discussed the importance of each topic example listed on the worksheet with the students.

I told the students that they would be creating a Google presentation document. Their presentation would include at least 7 slides explaining who, what, where, when, why, and how. I placed worksheet 3.1: Final Project Research (see Appendix A) on the overhead and gave students time to read the worksheet. I went over each question on the worksheet by providing examples and checked for understanding with the students. Afterwards, I loaded my sample Google presentation document on the computer and projected it to the class. The topic was “Save the Leatherback Turtles”. I proceeded in giving the students a presentation, and asked the students what they noticed and liked about each slide. Some of the student responses were: “Lots of pictures”, “Lots of facts”, “Very neat”, “Organized”, “Informative”, and “cool”. I explained the importance of brief text and lots of pictures. I told the students that brief text would make it easier for viewers to read, and that the presenter could elaborate on the text.

I explained that the students would now have the opportunity to go to the computer lab and do research on the topic that they would like for their project. I

asked them what my two rules of the computer lab were. JT's hand shot up and said "Drop everything and look at the teacher when the lights are off!" I reinforced JT's answer and asked the class what the other rule was. JI said "Stay on the topic, do not go off point!". Expectations were set, so I passed out the worksheets and sent the students to the computer lab.

In the computer lab, I observed the students as they did research on a project topic. Most of the students already predetermined their project topic. I ensured that the students wrote down their topic and research information into the worksheets. Some students checked for understanding by asking for clarification on the questions in their research worksheet. I assisted the students with their research by providing examples of what they should be looking for. As instructional time ran out, I sent the students to their next class. This concluded the first component of the lesson.

On the second day, I went over the computer lab rules before sending the students to the lab. In the computer lab, the students continued their research and composing their worksheets. I told the students that they had to complete 100% of their worksheets before they could start working on their Google presentation. As the students finished their research, I checked for understanding in their worksheets before giving them permission to begin creating their Google presentation document. I sat down individually with each student to check his or her progress on the project. I discussed the slides with the students to ensure that they made informed decisions towards which information to share in their project. The students worked on their project the entire duration of this class.

To kick off the final component of the lesson, I led the students to the computer lab and had them face the smartboard, away from the computers. I projected 3.1: Presentation Rubric on the overhead and went over each section of the rubric with the students. I asked students for the meaning of each category (clarity of signs, preparedness, academic language, content, depth of details, enthusiasm) and discussed the meaning with the students. I also went over the scoring component of the rubric, to help the students prepare for their presentation and to set expectations. I checked for understanding before telling them to proceed and finish their project. If the students were finished with their project, I told them that they could practice their presentations. I met with each student individually to check their work, to make sure that they covered everything and any questions they had were answered. Once they were done, I had them email their presentations to me.

After all the students were ready, I gathered their attention and had them face the smartboard in preparation for their presentation. I told the students that I would go first and share my presentation. I felt that this step was critical, in order to model presenting and to scaffold students in their preparation for their presentations. I proceeded to load my presentation, introduced myself and presented. When I was done, I asked the students if they had any questions. The students shook their heads. I told them that it was their turn to share. I asked for a volunteer to present first, and JT's hand shot up. I let him take the floor and sat in his seat. After he gave his presentation, he thanked everyone for watching. I got up and applauded him for doing a great job, and asked for the next volunteer. This went on until all of the students

gave their presentations. I congratulated the students for completing their final project and thanked them for sharing. I had everyone log out of their computers and led them back to the classroom.

Once back in the classroom, I proceeded with the closure. I asked the students what they learned in the lesson. JS commented, “I learned that many things are important but many people don’t know about them”, and CM chimed in “I learned a lot about endangered animals and what we can do to save them”. I nodded in agreement and told them that it was important to educate others about matters that are close to our heart. I asked the students whether they enjoyed this lesson. TP said “Making the Google presentation was fun. I enjoyed looking at pictures of chimpanzees and picking them out”. CM said “I didn’t like doing the research part!” I explained that research skills were very important and that they would be doing lots of research in their lives. I asked the students whether they would use Google Presentation again in the future. JI said “Yes, its much easier than PowerPoint. I can access my files in Google Drive anywhere. I won’t need to use a USB stick!” The other students nodded in agreement.

Final Notes: This lesson took a very long time to complete. I felt that by allowing the students to pick out their topic, it enabled motivation and allowed the project to be student-centered. The research component was important, and provided the students the opportunity to apply their research skills in navigating results from search engines and determining the credibility and/or importance of the sources. I also found it extremely benefitting for the students to share their work with the class. It

entitles a sense of ownership, pride, and accomplishment. Presenting also encouraged their bilingual development- signing in ASL with English text on the screen. However, it was difficult to keep some students in line, especially when some students worked faster and finished their work before the others. I also felt that it was important that the students had a chance to review the presentation rubric and practice before they gave their presentations. All in all, I felt this lesson was successful and contributed to their learning.

IX. RESULTS OF THE EVALUATION PLAN

Following the implementation, I was able to measure the efficiency of the curriculum by using the three pillars of the evaluation plan. The outcome of the evaluation determined the quality of the curriculum, the quality of student learning, and the quality of student applications. The plan presented a comprehensive range of strengths and weaknesses within the curriculum design.

To determine the quality of the curriculum, I recorded detailed field observation notes. I was able to conclude that the curriculum implementation was successful and benefited student learning. It includes anecdotal and reflective notes of individual and group student work progress, student comments, and their participation throughout the lesson. At the end of each lesson, I documented final notes reflecting on any changes made, overall student behavior and the overall result on the effectiveness of the lesson. By leaving field observation notes, it allows future users of the curriculum to better prepare themselves prior to each lesson. These notes helped gauge components of the lesson that would benefit from improvements or modifications in the process or materials and activities. I strongly feel that this component of the evaluation plan was instrumental in measuring the outcome of the curriculum.

To determine the quality of student learning, I evaluated student performance in the classroom and student work samples by using predesigned rubrics for each lesson and/or project. Through data collection, I was able to conclude that the

implementation was effective and that the students learned a great deal from the curriculum. To evaluate student work samples, six different rubrics were created, each tailor-made for a specific lesson. I strongly feel that the data collected from the work sample rubrics provided authentic results of student learning within the lesson. By using rubrics, I was able to gain an insight into specific components of the lesson that the students learned from the most. A rubric was also developed to evaluate individual student performance in the classroom following each lesson. The rubric measured student participation, communication, depth of student learning, and creativity. However, as I evaluated and compared the students' rubric, I felt that the rubric did not accurately reflect student performance. This was mainly because I realized that it was not designated to account for the different learning styles or varied intelligence levels of the students. This factor partially skewed the results of student performance in the classroom.

To determine the quality of student applications, student work samples were used as the benchmark. Through student charts, data, research findings, artwork, and digital video productions, I was able to harvest evidence of student applications towards new and current material taught within the curriculum. Considering that two-thirds of the curriculum is student centered and project-oriented, it was fitting to use student work samples as the source for determining the quality of student applications. I strongly believe that student work samples are instrumental because they provide concrete data and evidence of student learning. This allows teachers to determine

whether students were able to make applications of what they learned towards lesson activities and projects.

The evaluation plan allowed me to conclude whether the curriculum goals were achieved. The goals were:

1. *Technology Operations and Concepts*- students will exhibit a robust understanding of technology concepts, applications, and operations.

2. *Research and Information Fluency*- students will develop skills to gauge credibility of internet sources to gather and process research information.

3. *Collaboration and Communication*- students will learn to use digital media to work collaboratively as a group and communicate with others digitally through ASL and English.

4. *Creativity and Innovation*- students will harness their knowledge of technology to foster creativity in developing innovative digital media productions.

5. *Bilingual Development*- students will address bilingual development in ASL and English through technology applications.

The first curriculum goal states that *students will exhibit a robust understanding of technology concepts, applications, and operations.* All three pillars

of my evaluation plan lend support in the achievement of this goal. Drawing from student work samples and field observation notes throughout the entire curriculum, the students show evidence of understanding technological concepts and competency in mastering digital skills. Student work samples in lesson 1.1: *Technology 101*, lesson 1.2: *The Internet*, and lesson 1.3: *Search Engines* (see Appendix B), demonstrate knowledge of technology concepts such as the internet, email, www, browser, search engines, etc. as shown in their illustrations, charts, posters, and worksheets. In my field observation notes and work samples from lesson 2.1: *Email 103*, lesson 2.2: *Google Docs / Drive*, and lesson 3.1: *Capstone Project* (see Appendix B), the students indicate mastery of technology applications and operations in learning and navigating new applications such as Google Drive, Google Documents, Google Presentation, and Gmail. This is proven through evidence in field observations and the final result of their projects.

The second curriculum goal states that *students will develop skills to gauge credibility of internet sources to gather and process research information.* Evidence from student work samples in lesson 1.3: *Search Engines* (see Appendix B) and lesson 3.1: *Capstone Project* (see Appendix B) demonstrates that this goal was achieved. In lesson 1.3 (see Appendix A) , students revealed proficient skills in gauging the credibility of internet sources towards their project topic, which was verified by accurate responses in student worksheets. The students also applied their newfound skills in phase two of lesson 3.1: *Capstone Project* (see Appendix A) , which consisted

of collecting and processing research information towards their topic for their final project and presentation.

The third curriculum goal states that *students will learn to use digital media to work collaboratively as a group and communicate with others digitally through ASL and English.* In this case, every component of this goal was achieved. In lesson 2.1: *Email 103* (see Appendix B), student work samples reveal evidence of students communicating digitally through Gmail. They learned how to compose formal emails complete with a subject, greeting, body, and closing. In the field observation notes (see Page __), the students discussed how email was a giant step for deaf people when it comes to accessibility and equality because there were no barriers or hindrances towards the deaf in email. In addition, my field observation notes of lesson 2.2: *Google Docs / Drive* (see Page __)reveal that the students were adept at working collaboratively as a team. They multi-tasked by communicating online with their team members using Google Docs while simultaneously working with Google Presentation on their group project slides. Afterwards, the students presented their work as a team to the rest of the class in ASL.

The fourth curriculum goal states that *students will harness their knowledge of technology to foster creativity in developing innovative digital media productions.* This goal was only partially achieved. A degree of creativity was shown through student work samples of the final project in lesson 3.1: *Capstone Project* (see Appendix A). The students exhibited creativity in the design of their layout and use of digital illustrations and pictures to support the presentation of their project topic. In

addition, the student performance rubric results indicate that some students possess a greater amount of creativity in their thinking than others. However, lesson 2.3: *Word Clouds* (see Appendix A) was dropped because of scheduling conflicts with school-wide academic events such as standardized testing (which is usually done in the spring). This was unfortunate, because the dropped lesson lends to the students creativity in digital arts. The implementation of my curriculum was hindered by a limited time frame. As a result, I feel that the curriculum did not provide sufficient opportunities for the students to foster creativity in their digital work samples and reveal their artistic side.

The fifth curriculum goal states that *students will address bilingual development in ASL and English through technology applications.* Through field observation notes, student performance rubrics and work samples, I am able to conclude that the students achieved this goal. In lesson 1.3: *Search Engines* (see Appendix A) , the students compiled a video log about what they learned in the lesson, what they liked, and what they found useful. The students also demonstrated use of academic language pertaining to technology. The video logs illustrate bilingual development through the use of technology applications to promote ASL, which is their primary language. In lesson 2.2: *Google Docs / Drive* (see Appendix A) and lesson 3.1: *Capstone Project* (see Appendix A), the students showcased their work by presenting to the class in ASL. This allowed the students to make connections between the English text on the presentation slides and the ASL presentation given by individual students. In addition, my field observation notes reveal that the students are

adept at navigating both languages in nearly every aspect of the curriculum implementation.

X. CONCLUSION

After two years of studying deaf education and instructional practices, it contributed to my ability to prepare and develop a bilingual curriculum to implement into a deaf classroom. The primary objective was to align the pedagogical focus of technology integration in the classroom. Although there is a plethora of technology curriculums being developed and put to use into today's classrooms, none of them are geared towards a bilingual classroom. The synthesis of technology and bilingualism came naturally to me as a deaf person. There is absolutely no way I would have developed this curriculum otherwise.

In the development of this curriculum, I hand-picked certain technology applications and lessons that I felt would benefit deaf students the most. The purpose for these lessons was to help encourage equal access and create independence for deaf students to take away and use in their future outside the classroom. In addition, I felt that the students would enjoy a technology curriculum and that it would help promote intrinsic motivation within the students. The majority of technology use requires English literacy skills to navigate technology applications on the computer such as the internet, email, and search engines. Because of this, it encouraged the students' development and use of their second language (English). I had hoped that through this curriculum, the students would see the importance of building on their bilingual abilities. To reinforce their primary language (ASL), I included components within the curriculum that taught the students how to communicate digitally using ASL. Because

deaf students learn visually, I ensured that I provided visual cues and examples to scaffold their learning in the acquisition of cutting-edge digital age skills.

I was elated to learn that my internship placement would be in a middle school English language arts classroom. Because the technological aspect of my curriculum was better suited towards the developmental levels of older students, I was hoping my placement would be in a high school classroom. However, during my implementation of the curriculum, I was relieved to learn that technology came naturally to younger students in this digital age. Although their English skills were not as proficient as those in high school, I did not have to modify my curriculum very much to accommodate the younger students. In addition, I made a few changes in the curriculum to address the essential conditions of an English language arts classroom by adding components that would facilitate the development of their literacy skills. At the outset of my curriculum implementation, I received very positive feedback on the activities and lessons from my students and cooperating teacher. This reinforced my confidence that the curriculum was indeed benefiting for the students. Most of the lessons took up the allotted time necessary and did not require additional time to complete. Nonetheless, I was concerned about being able to implement all the lessons in my curriculum due to a limited time frame. Fortunately, only one lesson was dropped due to scheduling conflicts with school-wide standardized testing. I was relieved that it wasn't too much of an obstruction to the implementation of my curriculum.

By developing this curriculum, it contributed to my overall development as a bilingual teacher in a deaf classroom. My confidence towards promoting bilingual practices in my pedagogy was strengthened through this experience. The curriculum implementation provided me with a better understanding of how deaf students navigate between the use of ASL and English through their learning. I noted that by using ASL as the primary mode of communication and understanding, the students learned more efficiently. They were able to transfer their understanding of ASL towards their English development. Through this process, the students were able to reflect on their use of language and indicated a greater degree of divergent thinking. This positive correlation demonstrates that if students' ASL skills are heightened, it contributes to their literacy development.

I enjoyed implementing the curriculum and I would do it again without hesitation. The students really enjoyed learning new technology concepts and applications. They reveled in the hands-on aspect of my lessons and learned through experimentation as they conducted the operations of new applications. I strongly feel that by providing students with hands-on experience, they will be able to take away what they learned and apply their newfound skills towards the future. In this digital age, I am honored to be able to give back to the deaf community by being a pioneer of the very first cutting-edge curriculum geared towards boosting technology literacy in a bilingual classroom for deaf students.

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APPENDIX A: THE CURRICULUM

The following pages constitute the curriculum titled *Boosting Technology Literacy in Deaf Students*.

Boosting Technology Literacy in Deaf Students

A CURRICULUM

BY

BLAKE MAX HERBOLD

Introduction

The locus of this curriculum is to provide bilingual deaf students with opportunities to learn digital age skills through technology integration- while concurrently enabling further academic language development in ASL and English. We are part of an increasingly digital world where technology is rapidly changing the way we live. Traditional learning environments and basic technology use in the classroom is no longer enough. We must wield the power of technology to *teach* our students how to *learn* digitally. Only then will our students be able to learn effectively and productively in the long run. This curriculum is exclusively designated for bilingual deaf students and instruction is primarily delivered through their native language of ASL, while written English is facilitated through the use of technology. The objective is to empower deaf students to think and act bilingually in digital-rich environments.

Curriculum Sequencing

New technology concepts and applications require us to first learn about the technology in front of us before we use them. Therefore, the structure of this curriculum is built on the foundation of progressive learning, which is based on a gradual increase of technical knowledge within each successive lesson. This process allows the students to transfer their current knowledge to new technologies and use higher-order thinking in technical applications, thus effectively paralleling their zone of proximal development. This curriculum can be used to overlap other curriculums and can be used interdisciplinary, which allows a greater degree of versatility in practical subjects.

This curriculum encompasses three separate partitions that serve as the primary areas of focus. They are as follows: 1- Introduction to technology, 2- Tools for communication and collaboration, and 3- Research and information fluency. Each partition is goal-oriented and is sequenced in such a manner that each successive lesson increases in difficulty and builds on the previous lesson.

Each partition includes lesson plans, worksheets, and rubrics. The worksheets and rubrics are used to help assess student performance and understanding of the lesson content. It allows us to determine whether the lessons were efficient in student learning and provides us with a tool to measure class progress.

Goals

The goals of this curriculum focus on the provision of opportunities for students to learn digital age skills through technology within bilingual applications. They are listed below:

1. *Technology Operations and Concepts*- students will exhibit a robust understanding of technology concepts, applications, and operations.

2. *Research and Information Fluency*- students will develop skills to gauge credibility of internet sources to gather and process research information.

3. *Collaboration and Communication*- students will learn to use digital media to work collaboratively as a group and communicate with others digitally through ASL and English.

4. *Creativity and Innovation*- students will harness their knowledge of technology to foster creativity in developing innovative digital media productions.

5. *Bilingual Development*- students will address bilingual development in ASL and English through technology applications.

Standards

The standards and goals were chosen based on the teaching subject and grade level of my placement. Because I was to implement my curriculum in a deaf middle school English language arts classroom, I used 6th-8th grade English language arts reading and writing Common Core State Standards (CCSS) jointly with the International Society for Technology in Education (ISTE) standards in the development of my curriculum. However, the lessons and standards used in individual lesson plans can be modified to meet your class needs. By incorporating the latest ISTE standards alongside the CCSS standards, I was able to ensure that my technology lessons (tools and activities) help students build proficiency for each specific technology indicator. These standards help me measure and assess students' skills and abilities in their use of technology. The ISTE standards are widely recognized and adopted worldwide, with a mission to empower connected learners in a connected world.

Evaluation

In order to evaluate the efficiency of this curriculum, three primary pillars (objectives) were developed. They are as follows: 1- The quality of implementation, 2- The quality of student learning, 3- The quality of student applications. In order to measure pillar efficiency, three tools were deployed and they include student performance rubrics, student work samples, and field observation notes. This approach will evaluate the curriculum and determine its validity in future use.

Curriculum Table of Contents

- **Partition 1 : Introduction to Technology**

  Students learn to utilize resources from the internet through ASL dialogue and visual media in order to develop research skills.

  - **1.1** *//* Technology 101
    - 1.1a – "What is Technology?" Worksheet (Teacher's Copy)
    - 1.1a – "What is Technology?" Worksheet
    - 1.1b – "Technology for the Deaf" Performance Assessment Worksheet
    - 1.1b – "Technology for the Deaf" Performance Assessment Rubric
    - 1.1c – "Technology in the Future" Worksheet
  - **1.2** *//* The Internet
    - 1.2a – "Draw the Internet" Worksheet
    - 1.2b – "Making a Poster" Worksheet
  - **1.3** *//* Search Engines
    - 1.3a – "Using the Search Engine" Worksheet
    - 1.3b – "ASL VLOG" Performance Assessment Rubric

- **Partition 2 : Tools for Communication and Collaboration**

  Students learn to use digital tools and resources to communicate and collaborate through online projects with others.

  - **2.1** *//* Email 103
    - 2.1a – "Sending an Email" Worksheet
    - 2.1b – "Sample Email" Worksheet
  - **2.2** *//* Google Docs / Drive
    - 2.2a – "Vocabulary Project" Worksheet
  - **2.3** *//* Word Clouds

- **Partition 3 : Research and Information Fluency**

  Students apply digital tools to gather information from internet sources to share with others in a capstone project.

  - **3.1a** *//* Capstone Project- Topic
    - 3.1a – "Final Project – Topic" Worksheet
  - **3.1b** *//* Capstone Project- Research
    - 3.1b – "Final Project – Research" Worksheet
  - **3.1c** *//* Capstone Project- Presentation
    - 3.1c – Sample Google Presentation Document (Teacher's Copy)
    - 3.1d – "Presentation Rubric" Performance Assessment Rubric

This curriculum is submitted in partial satisfaction of the
requirements for the degree of Master of Arts in
Teaching and Learning: Bilingual Education (ASL-English).

University of California, San Diego

1.1 Technology 101

In Brief

- **Lesson Duration: 1.5 Hours**
- The class will discuss the meaning of technology, how it is used in general and by Deaf people. Students will compile two 3-column charts in class.

Objectives

- **Content:** Given examples and photos of technology, students will describe what technology means, what it can do, and how it can help people. They will then apply this understanding to how technology can benefit Deaf people.
- **Language (ASL):** Given opportunities to discuss in ASL, students will communicate their understanding of technology and how it can benefit Deaf people by participating in a class discussion.
- **Language (English):** Students will organize their ideas by writing them down in two 3-column charts.

Standards

CCSS ELA Writing Standards : Technical Subjects 6-12 : Grades 6-8

2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.

2a. Introduce a topic clearly, organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (eg., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

iste.nets·s Technology Standards

6. Technology Operations and Concepts
Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

6d. transfer current knowledge to learning of new technologies

. Materials .

- ❑ Projector / laptop
- ❑ Internet access
- ❑ White paper
- ❑ Markers
- ❑ Worksheet 1.1a : "What is Technology?"
- ❑ Worksheet 1.1b : "How can Technology help Deaf People?"
- ❑ Worksheet 1.1c : "Technology in the future"

. Prep .

- Set up the projector, laptop, and overhead before class begins.

. The Plan .

1. Introduction

1.1. Begin by asking students what "technology" means and to give examples of technology. Jot their answers on the whiteboard. Students should realize that they are using technology in their daily lives. If they don't know a certain type of technology, use the laptop to pull up images in Google search and show students on the projector. Afterwards, have students assist you in compiling a t-chart that shows how technology has evolved over time. (e.g., wagon to car, candle to bulb, abacus to calculator, messenger bird to email, etc.)

2. Procedure

2.1. Project worksheet 1.1a : "What is Technology?" on the overhead and pose the questions to the students in ASL.

2.2. Pair up students based on skill level and have them discuss their ideas of technology in ASL. Assess student progress by observing and asking them to share their ideas with you.

2.3. When students have finished brainstorming, redirect their attention to you. Tell the students they are to compile the worksheet in class and that they can fill out the papers during discussion. Pass out copies of worksheet 1.1a : "What is Technology?" to the students.

2.4. Open a discussion with the entire class. Have students share their ideas and compile their worksheets.

2.5. During discussion, reinforce students' responses by writing them down on the worksheet on the overhead.

2.6. Ensure that all the students have completed their worksheets in class.

2.7. Tell the students they did a great job coming up with ideas of technology, but that you have another important question to ask.

2.8. Ask students: *"What kind of technology is important for Deaf people and why?"*

2.9. Lead a brief class discussion on technology used by Deaf people and their purposes.

2.10. Pass out worksheet 1.1b and tell the students that they are to fill out the worksheet in class. Remind them that they can use worksheet 1.1a as a guide.

2.11. For the final activity, project worksheet 1.1c : "Technology in the Future" on the overhead and discuss possible examples of future technology.

2.12. Pass out the worksheets and colored pencils. Have students complete their work.

2.13. Tell the students to present their work on the overhead and share about it with the class.

3. Closure

3.1. In the closure, ask students whether they enjoyed this activity. Did they learn something new, or did they already know the information? What changes could be made to this lesson to make it better?

. Modifications .

- Use the laptop/projector if necessary to pull up images in Google search to assist students' understanding of technology concepts.
- Vocabulary: TECHNOLOGY, COMPUTER, INTERNET, VIDEOPHONE, VIDEO RELAY SERVICE

. Wrap-Up .

- Use Rubric 1.1 along with Worksheet 1.1b: "How can Technology help Deaf People?" in order to assess student understanding

Worksheet 1.1a : "What is technology?" Name: _____

Kinds of technology	What technology does	Benefits of technology

Worksheet 1.1a : "What is technology?" Name: Teacher Copy *

Kinds of technology	What technology does	Benefits of technology
iphone	text people, fun games, everything! pictures	communicate, find your way, for emergencies (911), see in the dark
wifi	internet access ~~anywhere~~ sometimes	information, communication
car	takes me places, bring things, listen to music, find directions (GPS)	fast! Shelter (rain, snow, cold) strong
fire	gives light, warmth, cook food, bug repellent, smoke signals, burn things	beauty, natural, unlimited, keep warm, see in dark, dry things up

Worksheet 1.1b : "Technology for the deaf" Name: _____

Kinds of technology for the deaf	What it can do for deaf people	How it benefits deaf people

1.1 1.1b Worksheet Rubric

Student:_____

CATEGORY	4	3	2	1
Accuracy of facts	All supportive facts are reported accurately.	Almost all supportive facts are reported accurately.	Most supportive facts are reported accurately.	Supportive facts are reported inaccurately.
Content	Includes 4 things learned from the lesson.	Includes 3 things learned from the lesson.	Includes 2 things learned from the lesson.	Includes zero or 1 things learned in the lesson.
Depth of details	Explains in detail of 4 or more examples on the chart.	Explains 3 examples in detail on the chart.	Explains 2 examples in detail on the chart.	Explains zero or 1 examples in detail on the chart.
Enthusiasm	Very enthusiastic, takes project seriously.	Not as enthusiastic, but takes project seriously.	Shows little enthusiasm and is not very serious about the project.	Does not show enthusiasm or take project seriously at all.

Accuracy of facts: _____ Depth of details: _____
Content: _____ Enthusiasm: _____

Average score: _____

Worksheet 1.1c : "Technology in the future" Name: _____

1.2 The Internet

. In Brief .

- **Lesson Duration: 1.5 Hours**
- The class will engage in a discussion pertaining to the internet through a presentation via smart board connected to the internet. Students will create a poster board using seven academic language vocabulary words from the lesson.

. Objectives .

- **Content:** Given class discussions and graphic organizers, students will identify the basic parts of the internet, including the web, browser, websites, web addresses and search engines.
- **Language (ASL):** Given opportunities to discuss and provide demonstrations in ASL, students will communicate their understanding of the internet.
- **Language (English):** Students will draw a interpretation of the internet and create a graphic organizer using a poster board that represents the seven critical technical terms.

. Standards .

CCSS ELA Writing Standards : Technical Subjects 6-12 : Grades 6-8

2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.

2a. Introduce a topic clearly, organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (eg., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

iste.nets·s Technology Standards

3. Research and Information Fluency
Students apply digital tools to gather, evaluate, and use information. Students:

3a. plan strategies to guide inquiry

. Materials .

- ❑ Projector / laptop
- ❑ Internet access
- ❑ White paper
- ❑ Markers
- ❑ Worksheet 1.1a :
- ❑ Poster board for students graphic organizer in closure
- ❑ List of vocabulary terms
- ❑ (What is a browser? Youtube Video) https://www.youtube.com/watch?v=BrXPcaRlBqo

. Prep .

- Be sure to set up the projector, laptop, and overhead before class begins.
- **Refer to Appendix 1.2 for a sample of student-created poster**
- Review Rubric 1.2 before implementing the lesson

. The Plan .

1. Introduction (15 mins)

1.1. Begin by asking what the **internet** means, to stimulate class discussion. Have they used it? What for? Have them give examples of what the internet contains. Jot the keywords of their answers on the blackboard.

1.1.1. *(Keyword examples: Computer, e-mail, videos, WWW, etc.)*

2. Procedure (60 mins)

2.1. After the class discussion, define the **internet** to the students in ASL. Ask them if they have any questions and clarify your definition if necessary. When the students confirm their understanding, proceed to the next step.

2.1.1. (*The internet is a global network of computers. It is millions of computers around the world, all connected.)*

2.2. Tell the students that they will attempt to draw the **internet** from their imagination. Pass out blank sheets of paper and markers. Walk around and observe as they draw. Provide support and reinforce the students if necessary.

2.3. After the students have finished their drawings, collect their markers and tell them to turn their drawings face-down.

2.4. Using a internet-ready laptop connected to the projector, pull up Google image search and do an entry for **internet**. Show students the image results. Tell them that you are currently using the internet and that these images are from the internet. Point to a couple images and discuss them briefly with students.

2.5. Ask students if they feel that their artwork is comparable to the images on Google. Have

all students share their drawing with the class. Ask them if they feel that their artwork reflects the meaning of the **internet**.

2.6. Introduce the **World Wide Web (WWW)** and ask students whether there is a difference between the **internet** and **WWW**. Give students a chance to voice their opinions about "the WWW" and after they are finished, you may define it for them in ASL.

2.6.1. *(The World Wide Web is just one part of the internet. It contains websites and webpages that hold information. The internet also includes e-mail, file sharing, instant messaging, and video games)*

2.7. Ask students if they have used the **WWW** on the computer before. Appoint a student to volunteer and demonstrate accessing the **WWW** on the laptop connected to the projector while the others observe. When the student is done with his/her demonstration, thank them and have them return to their seat.

2.8. Ask students what they noticed about the volunteer's actions to access the internet. Tell the students that the icon to access the **WWW** is called a **browser**. Define the **browser** to the students in ASL.

2.8.1. *(it is a tool to help you access the World Wide Web, and there are many different browsers. Several examples include Internet Explorer, Safari, Chrome, and Firefox.)*

2.9. Using a internet-ready laptop connected to the projector, pull up www.youtube.com and do a search entry for "What is a browser" by Google (see MATERIALS for link). Show the video and ask for a volunteer to interpret the video being played in ASL for the class. (Pick the student that you think would provide the best interpretation).

2.10. Introduce the **website** and **web address**. Ask students what the definition is and to provide examples.

2.11. When they are finished, you may provide the correct answer and definition of **website.**

2.11.1. *(A website is a collection of webpages that belong to one domain or owner. A webpage is a single document, a single page in a website.)*

2.12. Pull up www.kids.nationalgeographic.com/kids on the projector and tell the students that what they see as a whole is a **website**. Point to individual links in the navigation bar and tell them that each link contains a webpage. Click on one of the individual links and tell them that it is one of many webpages on the **website.**

2.13. Point to the **web address**, and ask the students what it is called. Let them guess before providing the correct definition.

2.13.1. (*A web address is the identifying address for a website. By providing a certain web address, it allows you to access the certain file on the WWW. It is also called a URL. An example of a web address is http://www.google.com)*

2.14. Ask students to provide examples of a **website** or **web address** that they have frequented and jot names on the blackboard.

2.15. Introduce the **search engine**. Ask students the what the definition is and to provide examples.

2.16. Pull up www.google.com on the projector and ask students what the website can do for them. What kind of searches are there?

2.16.1. *(web, news, videos, images, shopping, etc.)*

2.17. Define the **search engine** and provide examples.
2.17.1. *(A search engine is a program to help you find webpages on the WWW.)(Examples: Google, Yahoo, Bing, Ask)*

2.18. Type a search in the bar, and pause mid-sentence to highlight the autocomplete feature. Show them how it works, and how it may help them find answers.

2.19. Submit a search and show the students the results. Tell them that each search has many results.

2.20. For the final activity, write the vocabulary list on the blackboard.

2.21. Tell the students that they will make a poster that includes all vocabulary terms. They will create drawings that represent the term, and write a brief definition under each term.

2.22. Support the students by providing an example using one of the vocabulary terms.

2.23. After students have completed their poster, put it on the classroom wall for future reference.

3. Closure (15 mins)

3.1. In the closure, ask students whether they enjoyed this activity. Did they learn something new, or did they already know the information? What changes could be made to this lesson to make it better?

. Modifications .

- Vocabulary: INTERNET, BROWSER, WEB ADDRESS, SEARCH ENGINE, WEBSITE, COMPUTER, WWW

. Wrap-Up .

- Use rubric 1.2 to assess individual student contributions towards group work in creating the graphic organizer poster.

Worksheet 1.2a : "Draw the internet" Name: _____

Name:_____ Date:_____

1.2 1.2b : Making a Poster

Roles: *Leader - Researcher - Writer - Layout Artist - Color Artist*

Directions: Make an artistic poster of all seven vocabulary words. Write a description and draw a picture for every vocabulary word. Use your laptops to if you need more information!

Vocabulary Words

COMPUTER

INTERNET

BROWSER

WORLD WIDE WEB (WWW)

WEB ADDRESS

SEARCH ENGINE

WEBSITE

1.3 Search Engines

. In Brief .

- **Lesson Duration: 1.5 Hours**
- Students will engage in a brief tutorial on using the search engine in the classroom, before heading to the computer lab and obtain hands-on experience in navigating search results by following a set of directions listed on a worksheet. Students will write down their findings and create a VLOG that documents what they learned in the lesson.

. Objectives .

- **Content:** Given a search engine tutorial and tips, students learn to navigate search engines in order to locate certain information pertaining to their search query.
- **Language (ASL):** Students will use video logs (VLOGS) to demonstrate what they learned in the lesson.
- **Language (English):** Given a worksheet, students will follow directions to utilize the search engine and write down their results in the blanks.

. Standards .

CCSS ELA Reading Standards : Informational Text 6-12 : Grades 6

Key Ideas and Details

2. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

iste.nets·s Technology Standards

3. Research and Information Fluency
Students apply digital tools to gather, evaluate, and use information. Students:

3c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks

. Materials .

- ❑ Projector / laptop
- ❑ Internet access
- ❑ Computer lab
- ❑ Video camera
- ❑ Pencils
- ❑ Worksheet 1.3a: "Using the search engine"
- ❑ Rubric 1.3b

. Prep .

- Set up the projector, laptop, and overhead before class begins.
- Sign up for computer lab use at least a week in advance.

. The Plan .

1. Introduction (15 mins)

1.1. Begin by asking students what a "search engine" means and to give examples of different search engines. Ask students how they can find search engines. Jot their answers on the poster board. Use the laptop to pull up examples of different search engines.

1.1.1. *(Image search Google for search engine examples, ie: Google, Yahoo, etc.)*

1.2. Explain how a search engine works.

1.2.1. (Search engines put together a database of sites by sending "spiders" to crawl through the web- going from link to link. The spiders scan the sites to match any keywords selected.)

2. Procedure (60 mins)

2.1. Explain the anatomy of a search results page to the students. To do this, pull up www.google.com and point to the **search box** and define it for the students. Have them come up with a suggestion. It is called a **search query**. Submit the search query and watch as the results load. Point to the **title**, **web address**, and **snippet** from the search results and explain their purpose to the students.

2.2. Ask students what **web address** means, and tell them that another word for **web address** is called **domain** or a **url.** Tell them that there are many different kinds of **domains.** Write (.COM, .ORG, .EDU, .GOV) on the poster board. Define each of these **domain** types to the students in ASL. Tell them they can identify what kind of website it is by looking at the **domain** type.

2.3. Point to the **search tools**, located below the search box. Explain to the students that these tools can help them find specific types of media related to their search. **Search tools** include images, shopping, news, maps and more.

2.4. Demonstrate the **advanced image search** to the students and tell them that it can help them narrow down their image search.

2.5. Tell the students that they need to be specific if they want to narrow down their search results. They will need to use **keywords**. Define **keywords** in ASL. Have students suggest certain keywords for the recent search entry. Enter the new keywords and have students determine if it generated better search results.

2.6. Show the students the **autocomplete** feature. Explain to the students how the feature may help them find the correct keywords.

2.7. Tell the students that you can control the search results by using different kinds of commands. Examples include **"quotation marks"**, the **(+)** symbol, and the **(-)** symbol. Provide examples by demonstrating the use of the commands in their previous search queries.

2.7.1. *(The quotation marks command will search exact phrases, the (+) command will include the keyword in the search, and the (-) command will exclude the keyword in the search.)*

2.8. This sums up the search tutorial. Before directing the students to the computer lab for the next activity, project worksheet 1.3: "Using the search engine" on the overhead and go through the questions in ASL. Clarify the directions and answer any student questions.

2.9. When the students are ready, lead them to the computer lab and pass out the worksheets. Have students begin working on their worksheets as you observe and provide support.

3. Closure (15 mins)

3.1. When a student completes their worksheet, have them record a vlog about what they learned in the lesson (using a video camera). Ensure that all students have recorded a vlog.

3.1.1. *(Prompts may include: Did you enjoy the activity? What did you learn? What did you already know? How could this lesson be better?)*

✂. Modifications .

- Vocabulary: KEYWORD, DOMAIN, QUERY, SNIPPET, SEARCH BOX, AUTOCOMPLETE, QUOTATION MARKS, (+) COMMAND, (-) COMMAND.

☺. Wrap-Up .

- Grade worksheet 1.3: "Using the search engine" to assess student participation in the lesson.
- Evaluate the students vlog using Rubric 1.3

Name:_____ Date:_____

1.3 1.3a : Using the Search Engine

1. What do you want to search for?_____

2. Which search **keywords** will you use?_____

_____

*Directions: Go to www.google.com and type your **keywords** in the **search box**.*

3. Look at your search results. Did you find what you were looking for?

Circle one: YES NO

4. What did you find that was NOT related to your search? _____

_____

5. Do you think you could narrow down your search results?

Circle one: YES NO

How would you do that? _____

_____

6. Did that work?

Circle one: YES NO

Why or why not?_____

_____

7. What did you learn about search engines today? List two things.

1. _____

_____

2. _____

_____

8. What else do you want to learn about search engines?_____

_____

9. Do you think that it is important to learn about how search engines work?

Circle one: YES NO

Why or why not?_____

_____

10. Did you enjoy this lesson? _____

_____

VLOG Guidelines

- Say **two things** you learned
- Say what you **liked** about this lesson
- Use **vocabulary** words you learned
- **PLAN:** Think about what you will say

1.3 1.3b : ASL VLOG Rubric

Student:_____

CATEGORY	4	3	2	1
Clarity of signs	Signs clearly all the time and is easy to understand.	Signs clearly most of the time and is understandable.	Clarity could be improved and sometimes difficult to understand.	Signing is sloppy and difficult to understand.
Preparedness	Student is completely prepared and has obviously rehearsed.	Student seems prepared but might have needed a couple more rehearsals.	The student is somewhat prepared, but it is clear that rehearsal was lacking.	Student does not seem at all prepared to present.
Academic language	Uses many academic language vocabulary related to the subject. Includes 3-4 words.	Uses some academic language vocabulary related to the subject. Includes 1-2 words.	Uses a little academic language vocabulary related to the subject. At least 1 word.	Uses no academic language vocabulary related to the subject.
Content	Includes 3 things learned from the lesson.	Includes 2 things learned from the lesson.	Includes 1 thing learned from the lesson.	Does not include anything learned from the lesson.
Depth of details	Explains in detail of 3 things learned in the lesson.	Explains in detail of 2 things learned in the lesson.	Explains in detail of 1 things learned in the lesson.	Does not explain in detail of things learned in the lesson.
Enthusiasm	Very enthusiastic, takes project seriously.	Not as enthusiastic, but takes project seriously.	Shows little enthusiasm and is not very serious about the project.	Does not show enthusiasm or take project seriously at all.

Clarity of signs: _____ Content: _____
Preparedness: _____ Depth of details: _____
Academic language: _____ Enthusiasm: _____

Average score: _____

2.1 Email 103

. In Brief .

- **Lesson Duration: 2.5 Hours (2 to 3 classes)**
- Students will engage into class discussions about email before creating individual Gmail accounts, navigating Gmail and performing tasks such as sending and forwarding emails, creating gmail contacts, and working with attachments. At the end of the lesson, students will create a VLOG about the use of email.

. Objectives .

- **Content:** Students will create individual gmail accounts, learn to use gmail and perform tasks such as sending and forwarding emails, creating gmail contacts, and working with attachments. These tasks will perform as part of the post-assessment.
- **Language (ASL):** Given opportunities to participate in class discussions using ASL, students will communicate their understanding of using Gmail by creating a VLOG.
- **Language (English):** Students will follow written directions to learn Gmail and compose emails using proper format and rules, which include the four essential parts of a letter.

. Standards .

CCSS ELA Writing Standards : Technical Subjects 6-12 : Grade 6

4. Production and Distribution of Writing
Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

iste.nets·s Technology Standards

2. Communication and Collaboration
Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

2a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

. Materials .

- ❑ Projector / laptop
- ❑ Internet access
- ❑ Computer lab reservation
- ❑ (x) copies of "Using Gmail" handbook
- ❑ List of vocabulary terms
- ❑ Worksheet 2.1a : Sending an Email
- ❑ Worksheet 2.1b : Sample Email

. Prep .

- Be sure to set up the projector and laptop before class begins.
- Set up a Gmail account and practice the tasks if you don't already have Gmail.
- Download the "Using Gmail" workbook from www.decoda.ca

. The Plan .

1. Introduction (5 mins)

1.1. Begin by asking the students:

- Who has used email?
- What program did you use?
- What were your experiences and challenges?
- What do you want to learn about email?
- Why Gmail?

2. Procedure (120 mins)

2.1. After the introduction, tell the students that they will be going to the computer lab to create their own email accounts and learn how to use Gmail. Set expectations for the students. Tell them they need to follow THREE rules.

- 1- Upon entering the computer lab, do not log in until you have been instructed to do so.
- 2- When lights flash, DROP EVERYTHING and face the teacher.
- 3- Follow directions. DO NOT go off task.

2.2. In the computer lab, have students face the SMART board away from their computers.

2.3. Demonstrate loading www.google.com, clicking on gmail, then clicking on "CREATE AN ACCOUNT"

2.4. Discuss:

- Parts of an email address (firstnamelastname@gmail.com)
- Choosing an email address
- Professional email addresses
- Password strength
- Providing personal information
- Storing information in case of a lost password

2.5. Tell the students to go to their computers and sign up for a Gmail account. Tell them they MUST check with you before deciding an username. Have them write down their email address and password. Tell them they have 5 minutes. After they finish, they are to drop everything and face the teacher.

2.6. When all students have set up their accounts, demonstrate navigating Gmail, explaining what different parts do (e.g., compose, inbox, trash, sent mail, etc.)

2.7. Write your email address on the whiteboard and have students send you an email. Write down the four parts of a letter on the whiteboard. Remind the students that they are to include all four parts. Explain that the date is not necessary for an email because emails have timestamps. After they finish, they are to drop everything and face the teacher.

2.8. While the students do this, write an email to the class (include yourself).

2.9. After students have sent you an email, demonstrate opening the email you sent. Point out the parts of a received message (subject line, date, sender, and message. Demonstrate replying to an email and logging out of your account.

2.10. Tell the students that they are to reply to your email and to log out of their accounts after they are done.

2.11. If there is sufficient class time remaining, proceed to the next section, creating contacts. If not, have the students return to the classroom and continue where you left off in the next class.

2.12. In this section, demonstrate opening your gmail account. Discuss contacts. What is it for? Demonstrate how to add a new contact. Show the students that if you reply to a message, the contact will be automatically added. Demonstrate how to manually add a contact.

2.13. Demonstrate how to create a contact group by creating a group for the class. Send a message to the group.

2.14. Have students practice opening their Gmail accounts, manually add a contact and add a contact by replying to a message.

2.15. Then have them create a class contact group with the names they have in their contacts and send a message to the group. After they finish, they are to drop everything and face the teacher.

2.16. If there is sufficient class time remaining, proceed to the next section, working with attachments. If not, have the students return to the classroom and continue where you left off in the next class.

2.17. In this section, demonstrate opening an email with an attachment (send an email with an attachment to yourself prior to this demonstration). Discuss and demonstrate how to

VIEW + DOWNLOAD then save attachments. Demonstrate how to attach a file to an email. Send the email to the class group.

2.18. Have students practice opening the message you sent and view + download then save the attachment. Have them find a picture off the internet, save it, attach it and send it to you in an email.

2.19. Pass around worksheets 2.1a and 2.1b and provide directions to the class before having them work independently

2.20. Discuss the importance of signing out of Gmail accounts. Demonstrate signing out of your account and have students sign out.

2.21. For the final activity, write the prompt *"Why I use email"* on the whiteboard. Tell the students that they are to answer the question by creating a VLOG (using the Macbook Pro webcam). Tell students that they should prepare a short outline before recording.

2.22. Walk around and assist students as they do their VLOG.

2.23. Proceed to the closure.

3. Closure (15 mins)

3.1. For the closure, discuss the following questions with the students:

- What makes email different than any other type of communication?
- What are some advantages of gmail? Disadvantages?
- What can you learn from the message header?
- Are your emails private?
- What is email etiquette?

Modifications

- Vocabulary: ACCOUNT, PASSWORD, EMAIL ADDRESS, COMPOSE, INBOX, REPLY, FORWARD, CONTACT, GROUP, ATTACH, ATTACHMENT.

Wrap-Up

- Assess student understanding by evaluating their VLOGs using rubric 2.1
- Use student work samples (the two emails they have sent to you) to assess understanding of the lesson.

Name:_____ Date:_____

2.1 2.1a : Sending an Email

Log into your Gmail account. You will send **TWO** emails to teacherherbold@gmail.com

Be sure to include the **4 parts** of a letter (greeting, body, closing, signature).

Subject: **EMAIL #1**

- What is your favorite **browser**?
- What is WSD's **web address**?
- Which **search engine** do you use?

Subject: **EMAIL #2**

- What is your favorite **animal**?
- Can you tell me what this animal **looks like**?
- What does this animal like to **eat**?
- **Attach** a picture of the animal to this email.

Name:_____ Date:_____

2.1 2.1b : Sample Email

(to) teacherherbold@gmail.com

(subject) Email #1

(greeting) Hi Mr. Herbold,

(body) My favorite browser is _____.
WSD's web address is _____.
I use the search engine _____.

(closing) Sincerely,
(signature) *Your Name*

Other **greetings**: Hi, Hello, Dear, Greetings, Good morning

Other **closings**: Regards, Cheers, Sincerely, Thanks, Best

2.2 Google Docs / Drive

. In Brief .

- **Lesson Duration: 2.5 Hours (2 classes)**
- Students will learn to use Google Docs and collaborate on a project learning new vocabulary pertaining to technology. Working in pairs, students will research two vocabulary terms and report their findings on two separate slides in a Google Presentation document. Their work will be shared with the entire class through a presentation.

. Objectives .

- **Content:** Students will collaborate on a project by researching vocabulary terms and perform tasks such as typing definitions and adding pictures on a Google Presentation document. Students will then present their slides to the class in ASL. These tasks will perform as part of the post-assessment.
- **Language (ASL):** Given opportunities to collaborate with other students through partner work, students will be able to discuss ideas and strategies using ASL. Students will communicate their understanding of the vocabulary terms during the final presentation.
- **Language (English):** Students will type vocabulary terms and their definitions on several Google Presentation slides that will be shared with the entire class.

. Standards .

CCSS ELA Writing Standards : Technical Subjects 6-12 : Grade 6

4. Production and Distribution of Writing
Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

iste.nets·s Technology Standards

2. Communication and Collaboration
Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

2d. Contribute to project teams to produce original works or solve problems.

. Materials .

- ❑ Projector / laptop
- ❑ Internet access
- ❑ Computer lab reservation
- ❑ Worksheet 2.2 : "Vocabulary Project"

. Prep .

- Reserve the computer lab at least a week in advance.
- Set up the projector and laptop before class begins.
- Create a Google Presentation document with 6 slides.
- Test the share feature in advance.
- "Share" the file with the students right before the lesson.

. The Plan .

1. Introduction (5 mins)

1.1. Begin by asking and discuss with the students:

- What is Google Docs?
- Who has used Ms Word / Powerpoint?
- How is Google Docs collaborative?

2. Procedure (120 mins)

2.1. After the introduction, tell the students that they will be going to the computer lab to work on a collaborative project in Google Docs. Set expectations for the students. Tell them they need to follow THREE rules.

- 1- Upon entering the computer lab, do not log in until you have been instructed to do so.
- 2- When lights flash, DROP EVERYTHING and face the teacher.
- 3- Follow directions. DO NOT go off task.

2.2. In the computer lab, have students face the SMART board away from their computers.

2.3. Demonstrate:

- Signing into Gmail
- Opening the shared doc "Vocabulary Project" Email
- Opening Google Drive
- Navigating Google Drive

2.4. Practice: Tell the students to proceed and follow the first two steps you have just

demonstrated. Tell the students that after they open the document, they are to drop everything and face you.

2.5. Place worksheet 2.2b on the overhead or open it in Google Docs. Pair up the students and assign each group to two vocabulary slides.

2.6. Explain to the students that they are to use the internet to find a definition and pictures for their assigned word. They are to decorate their slide and prepare it for presentation at the end of class.

2.7. Ask the students if they know what "plagiarism" means (by providing them with the sign for plagiarism). If they don't know, demonstrate plagiarizing a definition. Ask them if this is acceptable. Demonstrate the proper way to type definitions in your own words. Tell them that they are to write definitions in their own words. Suggest them to write their definitions on paper, then typing it on the slide. Copying and pasting is plagiarizing.

2.8. Tell the students to proceed and work on their slides. Remind them to stay on task because they only have 1 hour to finish their work. Tell them that after they are done, they are to practice presenting their slides.

2.9. Walk around the class and review student work for understanding. Assist students if necessary.

2.10. After students have completed their work, have the students log out and sit in front of the smartboard. Congratulate them for their hard work and begin the presentations.

2.11. After their presentations, send students back to the classroom. When in the classroom, discuss the lesson with the students in the closure.

3. Closure (15 mins)

3.1. For the closure, discuss the following with the students:

- What did you learn in this lesson?
- Did you enjoy this lesson? Why?
- What did you like/dislike the most about this lesson?
- Do you like Google Docs?
- Do you think you will use Google Docs in the future?

✂. Modifications .

- Vocabulary: Google Docs, Google Presentation, Technology, Internet, Social Media, Download, Digital, Website

☺. Wrap-Up .

- Assess student learning in the lesson according to their productivity in developing the slide and understanding of the content.

Name:_____ Date:_____

2.2 Vocabulary Project

Directions: In your Gmail inbox, find the email- "Vocabulary Project" from Mr. Herbold. Open the Google Presentation and begin working!

Helpful hints for finding definitions:

1) www.wordsmyth.net (click on beginner's dictionary)

2) Google search (definition "------") or image search

Slide #1 : *Technology*

Slide #2 : *Internet*

Slide #3 : *Download*

Slide #4 : *Digital*

Slide #5 : *Website*

Slide #6 : *Tutorial*

Slide #7 : *Mobile*

Slide #8 : *Social Media*

3.1 Capstone Project

. In Brief .

- **Lesson Duration: 6 Hours (3 classes)**
- Students will conduct a research project on a topic of their choice, based on what's important to them. They will perform tasks such as compiling research findings, writing an outline, and creating a Google Presentation document. At the end of the lesson, students will showcase their work with the rest of the class through a presentation.

. Objectives .

- **Content:** Students will conduct research on a topic of their choice and create a Google Presentation document with at least seven slides that contain text and pictures. Students will then showcase their work by presenting to the class.
- **Language (ASL):** Students will showcase their Google Presentation with the rest of the class by presenting their work in ASL.
- **Language (English):** Students will compile research findings on their topic by writing in their worksheets and creating a Google Presentation document consisting of text and pictures in preparation for their presentation.

. Standards .

CCSS ELA Writing Standards : Technical Subjects 6-12 : Grade 6

4. Production and Distribution of Writing
Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

iste.nets·s Technology Standards

4. Critical thinking, problem solving, and decision making
Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

4a. Identify and define authentic problems and significant questions for investigation.

4c. Collect and analyze data to identify solutions and/or make informed decisions.

. Materials .

- ❑ Projector / laptop
- ❑ Internet access
- ❑ Computer lab reservations
- ❑ Worksheet 3.1a : "Final Project - Topic"
- ❑ Worksheet 3.1b : "Final Project - Research"
- ❑ Sample File 3.1c : "Save the Leatherback Turtles"
- ❑ Rubric 3.1d : "Presentation Rubric"

. Prep .

- Reserve the computer lab for three sessions at least a week in advance.
- Set up the projector and laptop before class begins.
- Create a sample Google Presentation document to model.
- Test the share feature in advance.
- "Share" the file with the students right before the lesson.

. The Plan .

1. Introduction (5 mins)

1.1. Begin by asking and discuss with the students:

- What is a research project?
- What is plagiarism?
  - *Ask the students if they know what "plagiarism" means (by providing them with the sign for plagiarism). If they don't know, demonstrate plagiarizing a definition. Ask them if this is acceptable. Demonstrate the proper way to type definitions in your own words. Tell them that they are to write definitions in their own words. Suggest them to write their definitions on paper, then typing it on the slide. Copying and pasting is plagiarizing.*

2. Procedure (120 mins)

2.1. After the introduction, tell the students that for their final project, they will be conducting a research project and compiling a Google Presentation document to present to the class.

2.2. Explain the timeline and procedure to the students. The project consists of three sections, topic research, creating the Google Presentation, and presenting to the class.

2.3. Discuss the project topic with the students. Ask what it means when somebody asks "what's important to you?" Discuss with the students and provide examples if necessary.

Have students come up with a few examples.

2.4. After the brief discussion, present Worksheet 3.1a : "Final Project-Topic" on the overhead and go over the worksheet with the students.

2.5. Proceed to Worksheet 3.1b : "Final Project-Research" and share with the students on the overhead. Have them pick a sample topic and work together in creating answers on the worksheet. Share your "thinking" and model "researching" on Google if necessary. Help compose the worksheet on the overhead.

2.6. Share your sample Google Presentation document (Sample File 3.1c : Save the Leatherback Turtles" on the projector with the students. Go over each slide and discuss them. Ask students what they notice. (Picture on each slide, brief but informative text, etc.) Modeling helps scaffold their learning and sets expectations.

2.7. Tell the students that they will head over to the computer lab. Set expectations for the students. Remind them of the two "computer lab" rules.

- 1- When lights flash, DROP EVERYTHING and face the teacher.
- 2- Follow directions. DO NOT go off task.

2.8. Pass out the two 3.1 worksheets to the students. Tell them that today they will determine their project topic by conducting research online. Tell them to raise their hand if they need help or have questions. Remind them to stay on task.

2.9. Lead the students to the computer lab.

2.10. Observe and assist students in determining a project topic. Ensure that the students fill out their worksheets completely before creating a Google Presentation document. Give the students approximately 2 hours to complete their tasks.

2.11. In the next class, have students proceed in creating their Google Presentation document and make informed decisions towards which data to share in their project. Observe and assist students in their progress. Give the students approximately 3 hours to complete their Google presentation.

2.12. When students complete their project, share Rubric 3.1d : "Presentation Rubric" with the class. Go over the rubric and discuss each section. This helps students prepare for their presentation and sets expectations. Tell the students to practice presenting at home.

2.13. Model presenting your sample Google Presentation to the students before having them share their Google Presentation with the class. Tell them that now it's their turn to share. Ask who wants to go first and let them decide.

2.14. After the student presentations, congratulate them for doing a great job. Send them back to the classroom. When in the classroom, discuss the lesson closure with the students.

3. Closure (15 mins)

3.1. For the closure, discuss the following with the students:

- What did you learn in this lesson?
- Did you enjoy this lesson? Why?
- What did you like/dislike the most about this lesson?
- Do you like Google Presentation?
- Do you think you will use Google Presentation in the future?

. Modifications .

- Vocabulary: Google Drive, Google Presentation, Rubric, Search Engine, Topic, Research

. Wrap-Up .

- Assess student learning in the lesson by evaluating their work samples which include the two worksheets and their Google Presentations. Evaluate their presentation using Rubric 3.1d.

Name:_____ Date:_____

3.1 3.1a : Final Project - Topic

What's important to you?

Some topic Ideas:

- Global Warming
- Green House Effect
- Global Technology
- Online Education
- Classroom of the future
- Should mobile phones be allowed in classrooms
- Why adopt dogs?
- Endangered animals
- Recycling
- Preservation of deaf culture

Explain (at least 7 slides):

- **Who** is it about?
- **What** happened?
- **Where** did it take place?
- **When** did it take place?
- **Why** did it happen?
- **HOW** can you help?

My Topic:_____

Name:_____ Date:_____

3.1 3.1b : Final Project - Research

What's important to you?

Who is it about? _____

_____

_____

What happened? _____

_____

_____

Where did it happen? _____

_____

_____

When did it happen? _____

_____

_____

Why did it happen? _____

_____

_____

HOW can you help? _____

_____

_____

The Leatherback Turtle

- Scientific name: *Dermochelys coriacea*
- Largest sea turtle: Weighs 600-1500 pounds
- Leather-like shell
- Lives in the ocean

Status: Critically Endangered

- They have survived for more than hundreds of millions of years until now.
- Leatherback turtles are facing an extremely high risk of extinction in the wild.

The Leatherback Habitat

- Leatherback turtles can be found in the tropic and temperate waters of the Atlantic, Pacific, and Indian Oceans.
- Leatherbacks have the widest global distribution of all reptiles.

Why they are endangered

- Habitat loss
- Poaching
- Incidental capture
- Climate change
- Pollution
- Coastal development

How can we help Leatherbacks?

- Send a turtle to rehab! Help a sick and injured turtle recuperate.
- Don't buy products that have been made from sea turtles.

3.1 3.1d : Presentation Rubric

Student:_____

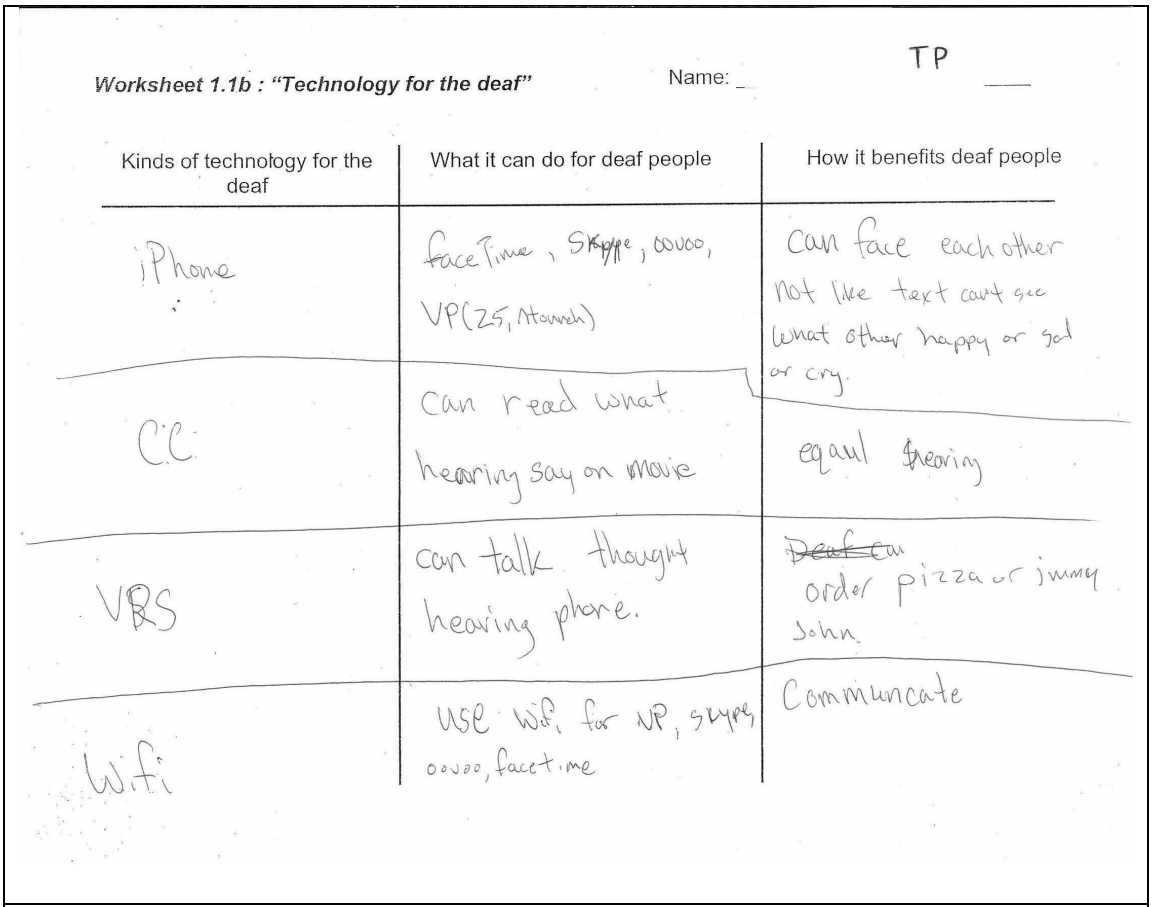
CATEGORY	4	3	2	1
Clarity of signs	Signs clearly all the time and is easy to understand.	Signs clearly most of the time and is understandable.	Clarity could be improved and sometimes difficult to understand.	Signing is sloppy and difficult to understand.
Preparedness	Student is completely prepared and has obviously rehearsed.	Student seems prepared but might have needed a couple more rehearsals.	The student is somewhat prepared, but it is clear that rehearsal was lacking.	Student does not seem at all prepared to present.
Academic language	Uses many academic language vocabulary related to the subject. Includes 3-4 words.	Uses some academic language vocabulary related to the subject. Includes 1-2 words.	Uses a little academic language vocabulary related to the subject. At least 1 word.	Uses no academic language vocabulary related to the subject.
Content	Includes all seven slides.	Includes at least 6 slides.	Includes at least 5 slides.	Does not include more than 5 slides.
Depth of details	Explains in detail of 3 things learned in the lesson.	Explains in detail of 2 things learned in the lesson.	Explains in detail of 1 things learned in the lesson.	Does not explain in detail of things learned in the lesson.
Enthusiasm	Very enthusiastic, takes project seriously.	Not as enthusiastic, but takes project seriously.	Shows little enthusiasm and is not very serious about the project.	Does not show enthusiasm or take project seriously at all.

Clarity of signs: _____ Content: _____
Preparedness: _____ Depth of details: _____
Academic language: _____ Enthusiasm: _____

Average score: _____

APPENDIX B: STUDENT WORK SAMPLES

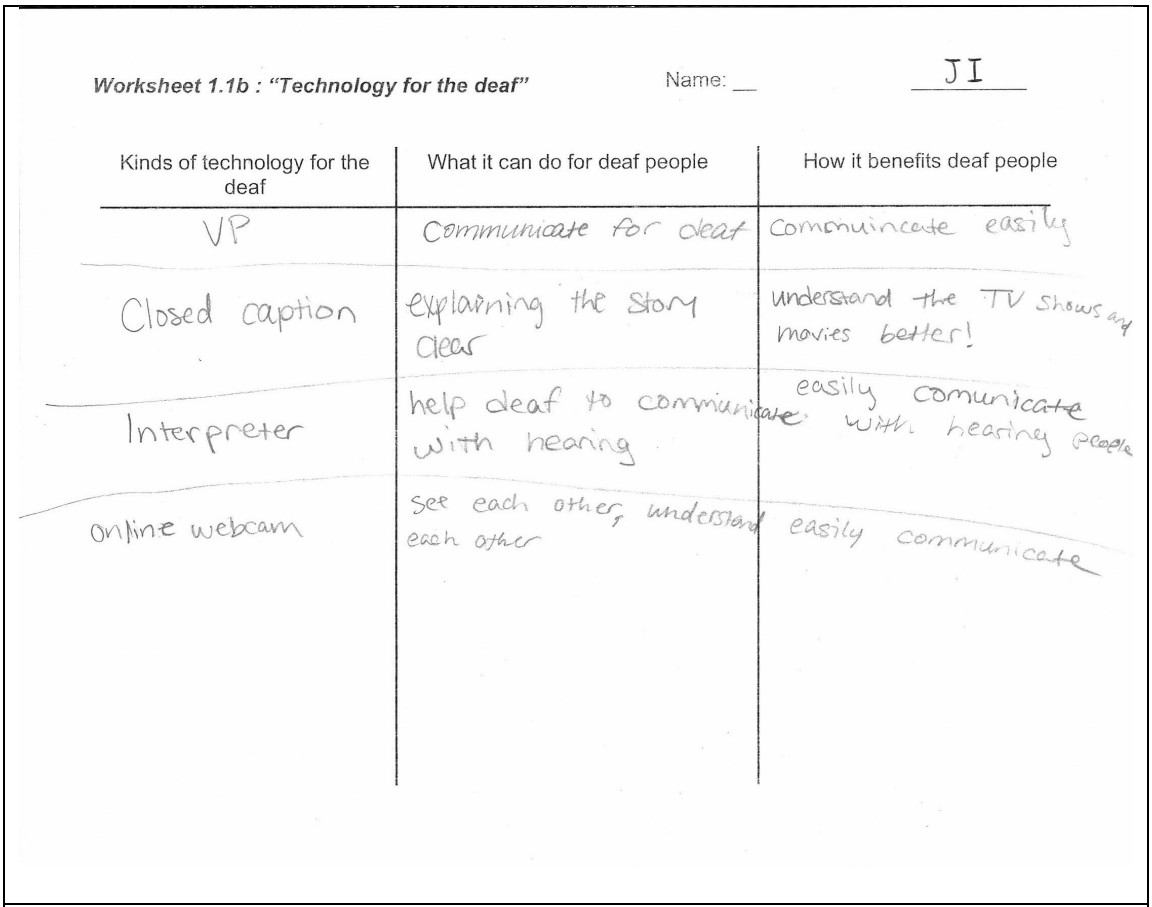
The following pages contain figures of student work samples retrieved from the curriculum implementation.



Worksheet 1.1b : "Technology for the deaf" Name: _ TP ____

Kinds of technology for the deaf	What it can do for deaf people	How it benefits deaf people
iPhone	FaceTime, ~~Skype~~, ooVoo, VP(Z5, Hamweh)	Can face each other not like text cant see what other happy or sad or cry.
CC	Can read what hearing say on movie	eqaul hearing
VRS	can talk thought hearing phone.	~~Deaf can~~ order pizza or jimmy John.
Wifi	use wifi for VP, skype, ooVoo, facetime	Communcate

Figure 3.1- Worksheet 1.1b: "Technology for the deaf"
By TP - Retrieved from Lesson 1.1



Worksheet 1.1b : "Technology for the deaf" Name: JI

Kinds of technology for the deaf	What it can do for deaf people	How it benefits deaf people
VP	Communicate for deaf	Communicate easily
Closed caption	explaining the story clear	understand the TV shows and movies better!
Interpreter	help deaf to communicate with hearing	easily comunicate with hearing people
online webcam	see each other, understand each other	easily communicate

Figure 3.2- Worksheet 1.1b: "Technology for the deaf"
By JI - Retrieved from Lesson 1.1

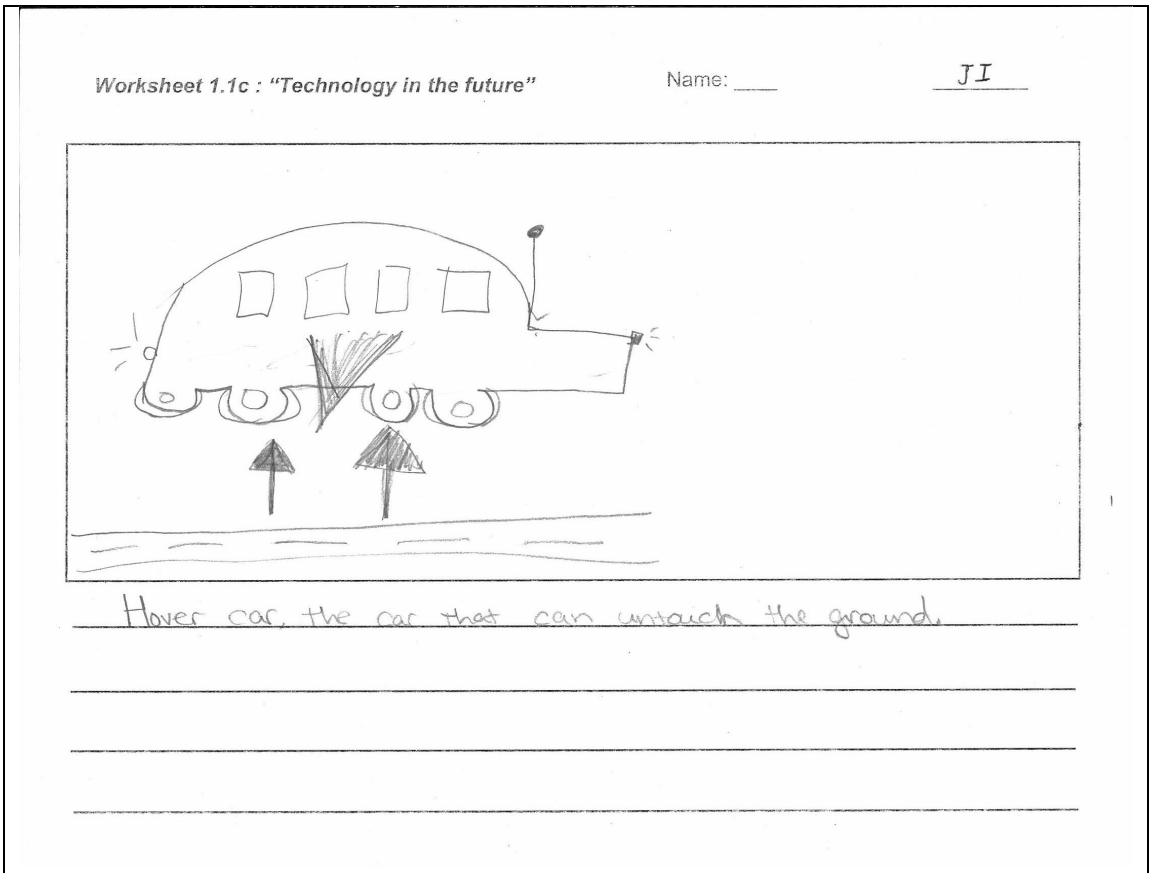


Figure 3.3- Worksheet 1.1c: "Technology in the future"
By JI - Retrieved from Lesson 1.1

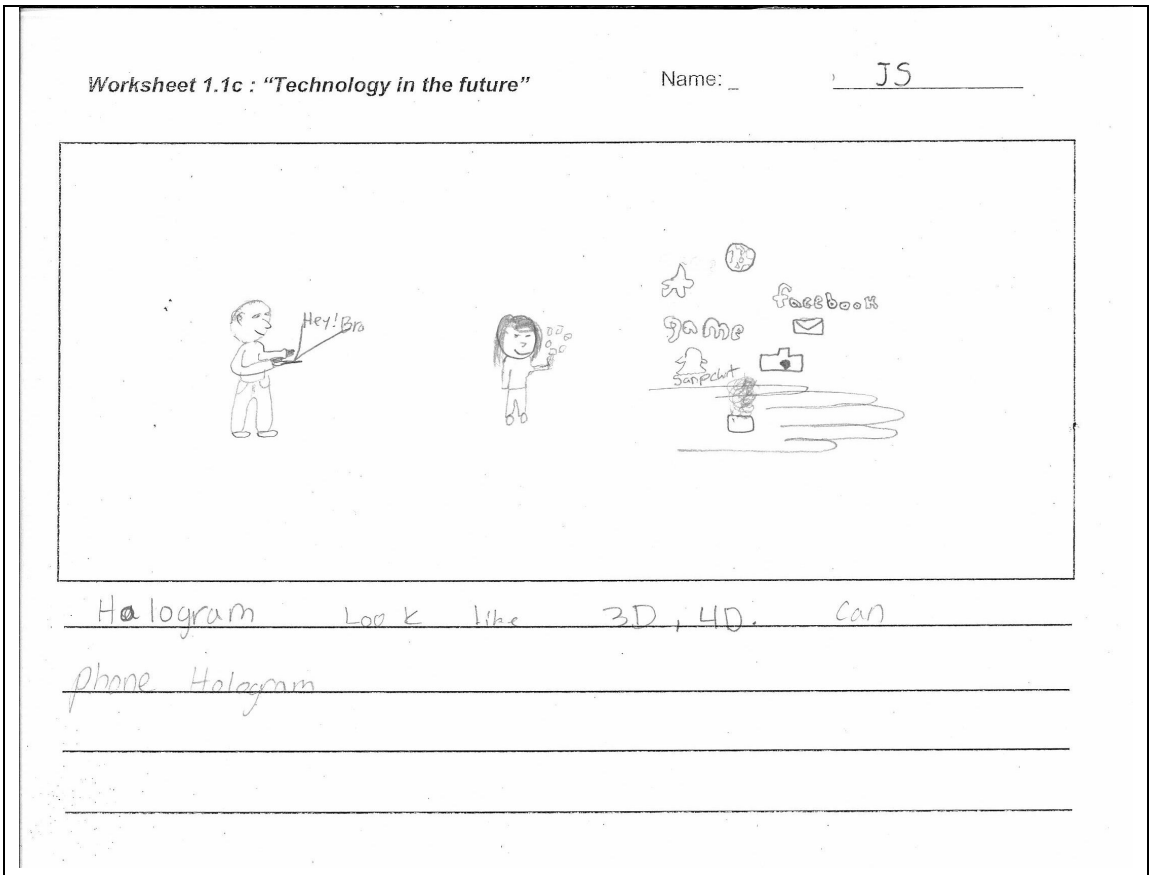


Figure 3.4- Worksheet 1.1c: "Technology in the future"
By JS - Retrieved from Lesson 1.1

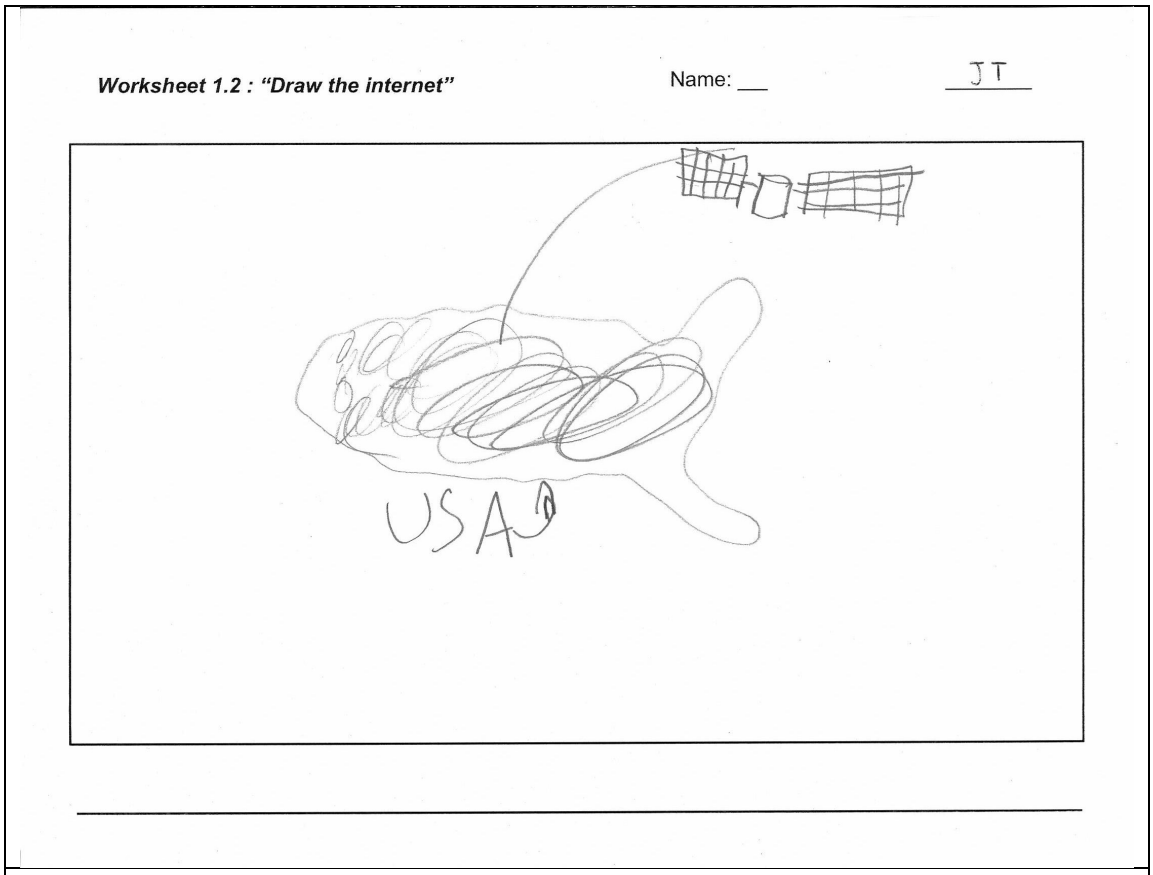


Figure 3.5- Worksheet 1.2: "Draw the internet"
By JT - Retrieved from Lesson 1.2

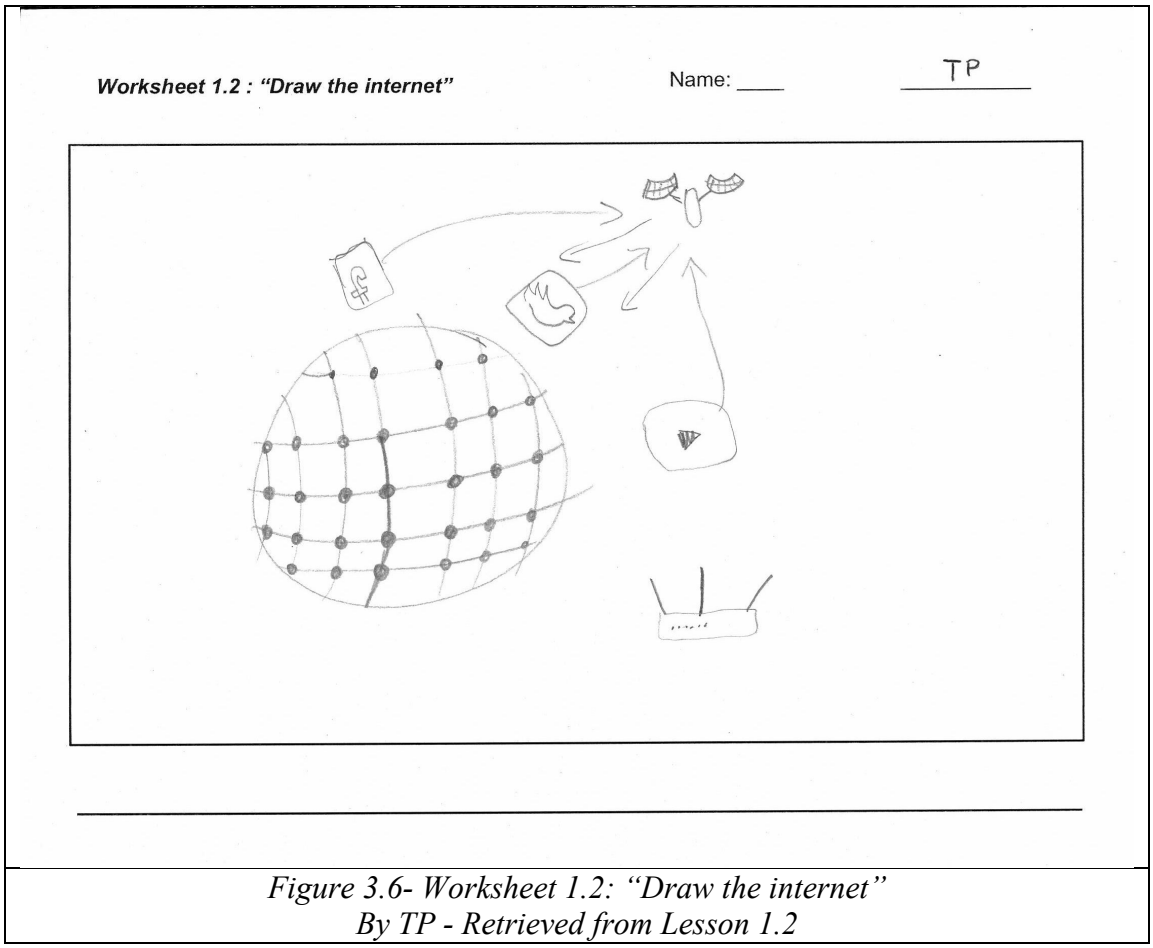


Figure 3.6- Worksheet 1.2: "Draw the internet"
By TP - Retrieved from Lesson 1.2

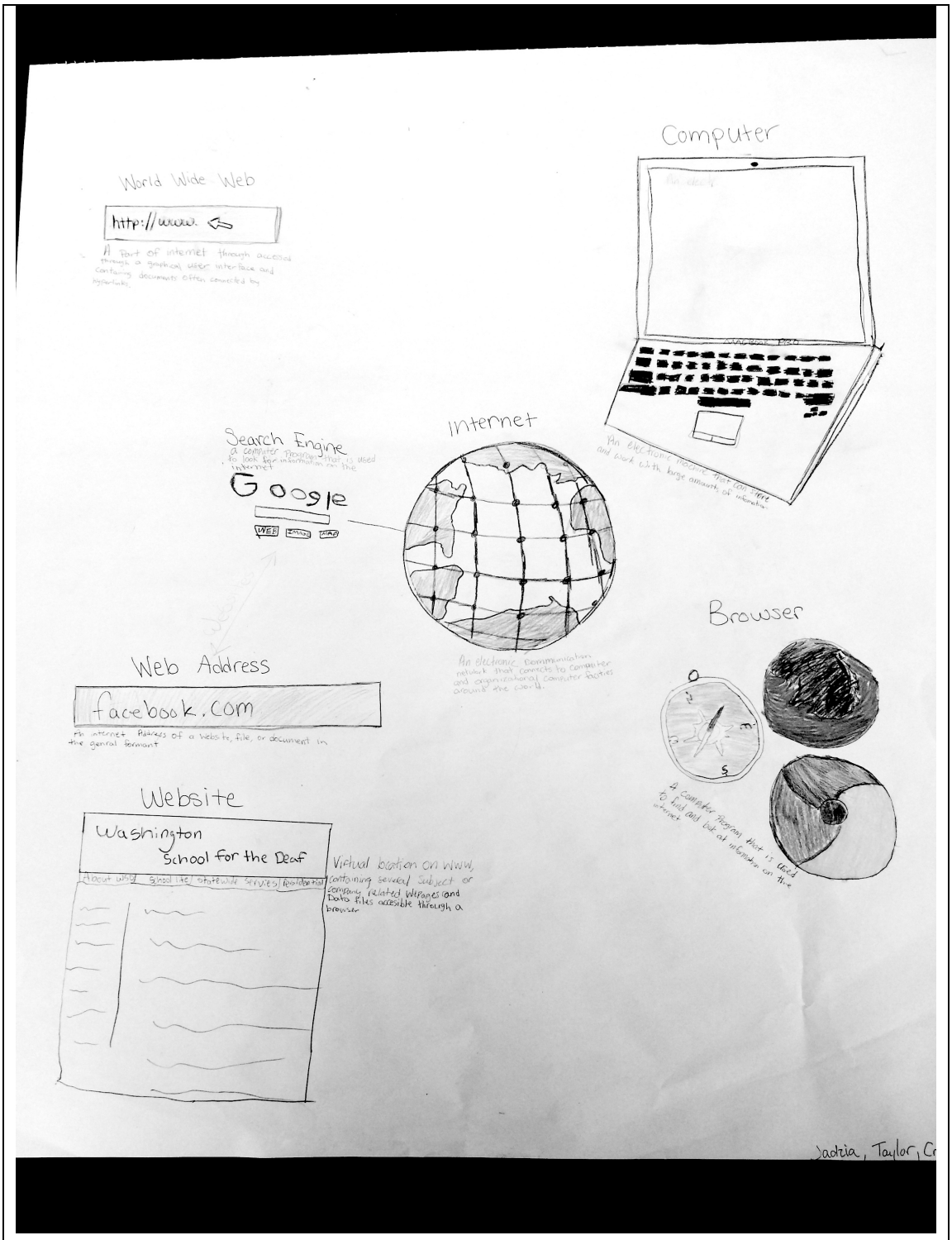


Figure 3.7- Making a Poster: "The Internet"
By JI, JS, JT, CM,TP - Retrieved from Lesson 1.2

Name: JS _____ Date: 5/12/14

1.3 Using the Search Engine

1. What do you want to search for? My name.

2. Which search **keywords** will you use? John Smart Deaf

*Directions: Go to www.google.com and type your **keywords** in the **search box**.*

3. Look at your search results. Did you find what you were looking for?

Circle one: (YES) NO

4. What did you find that was NOT related to your search? The book of John - Smart Guide - Google Books result

5. Do you think you could narrow down your search results?

Circle one: (YES) NO

How would you do that? add " "

6. Did that help you narrow down your search results?

Circle one: (YES) NO

Why or why not? more specific " "

Figure 3.8a- Worksheet 1.3: "Using the Search Engine"
By JS - Retrieved from Lesson 1.3

7. What did you learn about search engines today? List two things.

1. I Learn [redacted] more Specific

2. I Learn Search tools for pic size

8. What else do you want to learn about search engines?

9. Do you think that it is important to learn about how search engines work?

Circle one: (YES) NO

Why or why not? Search easy find.

10. Did you enjoy this lesson? Yes much Learn Search engine

VLOG Guidelines

- Say **two things** you learned
- Say what you **liked** about this lesson
- Use **vocabulary** words you learned
- **PLAN:** Think about what you will say

Figure 3.8b- Page 2 of Worksheet 1.3: "Using the Search Engine" By JS - Retrieved from Lesson 1.3

Name: TP Date: 5/2/14

1.3 Using the Search Engine

1. What do you want to search for? New DLC on COD Ghost

2. Which search **keywords** will you use? New DLC +3 for Ghost

*Directions: Go to www.google.com and type your **keywords** in the **search box**.*

3. Look at your search results. Did you find what you were looking for?

Circle one: YES (NO)

4. What did you find that was NOT related to your search? Black ops 2 DLC

5. Do you think you could narrow down your search results?

Circle one: YES (NO)

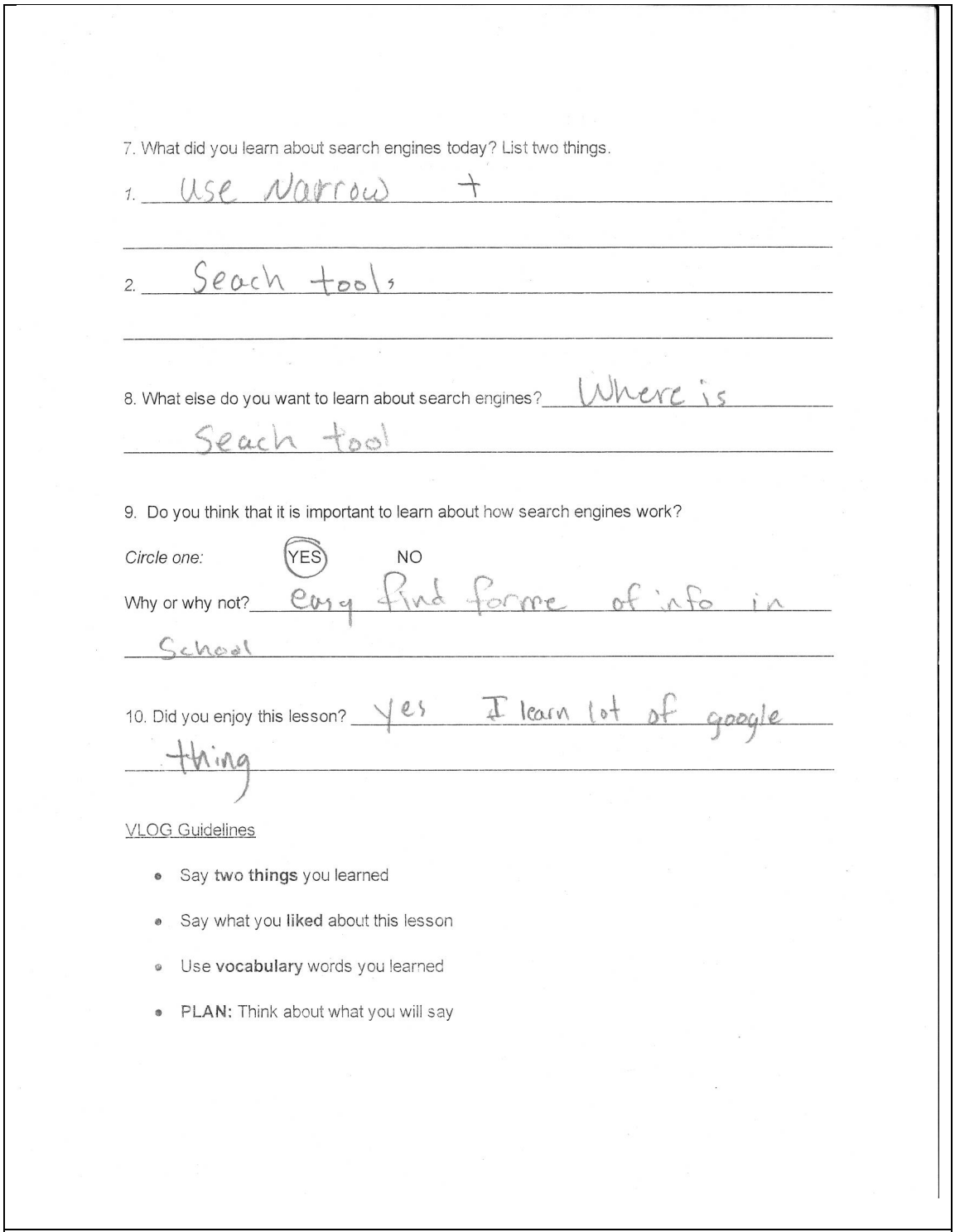
How would you do that? I try but I fail

6. Did that help you narrow down your search results?

Circle one: YES (NO)

Why or why not? I try I am FAIL!

Figure 3.9a- Worksheet 1.3: "Using the Search Engine"
By TP - Retrieved from Lesson 1.3



7. What did you learn about search engines today? List two things.

1. use Narrow +

2. Seach tools

8. What else do you want to learn about search engines? Where is Seach tool

9. Do you think that it is important to learn about how search engines work?

Circle one: (YES) NO

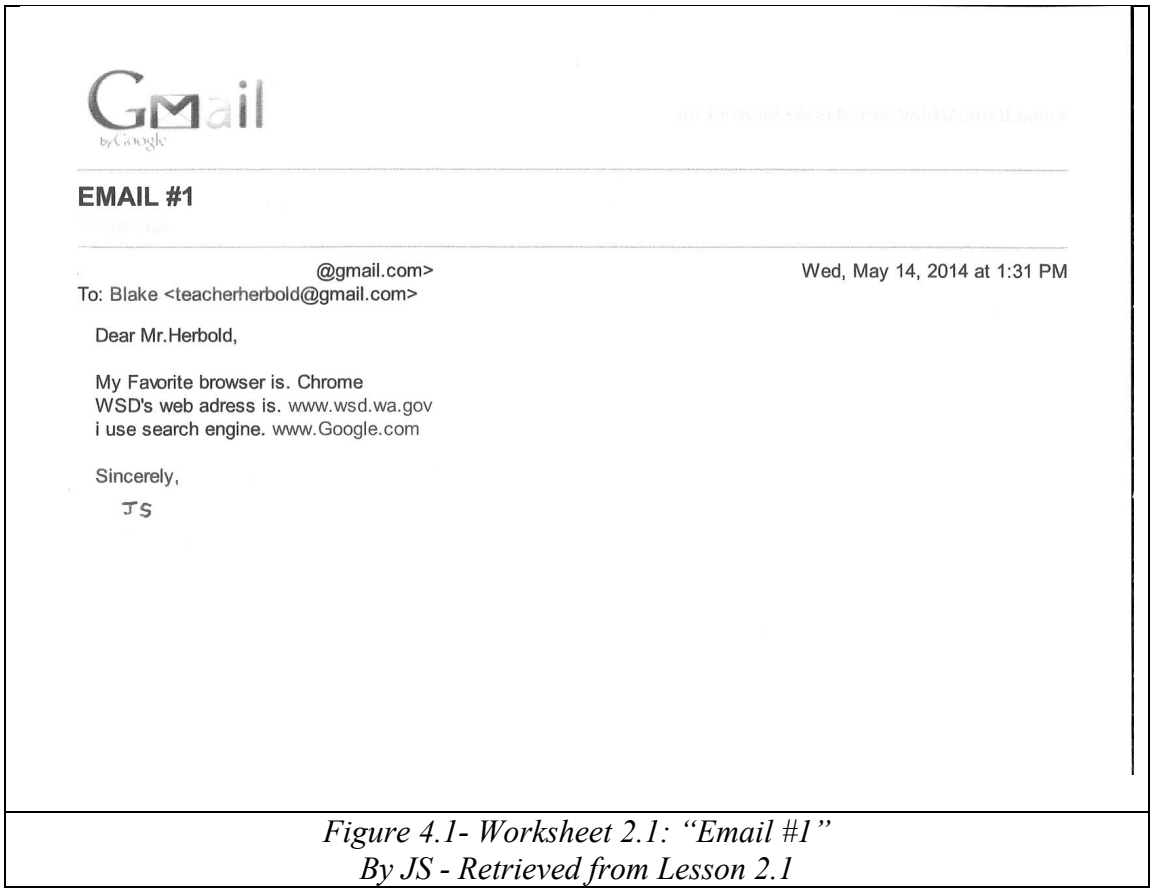
Why or why not? easy find forme of info in School

10. Did you enjoy this lesson? yes I learn lot of google thing

VLOG Guidelines

- Say **two things** you learned
- Say what you **liked** about this lesson
- Use **vocabulary** words you learned
- **PLAN:** Think about what you will say

Figure 3.9b- Page 2 of Worksheet 1.3: "Using the Search Engine" By TP - Retrieved from Lesson 1.3



Gmail
by Google

EMAIL #1

@gmail.com> Wed, May 14, 2014 at 1:31 PM
To: Blake <teacherherbold@gmail.com>

Dear Mr.Herbold,

My Favorite browser is. Chrome
WSD's web adress is. www.wsd.wa.gov
i use search engine. www.Google.com

Sincerely,
JS

Figure 4.1- Worksheet 2.1: "Email #1"
By JS - Retrieved from Lesson 2.1

Gmail
by Google

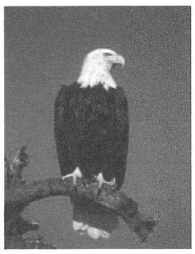
EMAIL #2

JS @gmail.com> Wed, May 14, 2014 at 1:36 PM
To: Blake <teacherherbold@gmail.com>

What is your favorite animal?
Bald Eagle.

can you tell me what this animal look like?
heard white, body brown and legs yellow.

what does this animal like to eat?
fish or some meat.



images.jpeg
7K

Figure 4.2- Worksheet 2.1: "Email #2"
By JS - Retrieved from Lesson 2.1

Name: JI Date: 5/20/14

3.1 Final Project - Research

Defend the Pitbulls!

What's important to you?

Who is it about? Pitbulls
Kind of dogs is genetic term. All were created with similiar cross-breeding between bulldogs and terriers

What happened? People hurts pitbulls
People abuses Pitbull because they judging Pitbulls' looks... People thinks they are very dangerous but they are not. It's depend on how people treats them.

~~Where~~ did it happen? Pitbull often attract the worst owners. Pitbulls were once considered especially non-aggressive to people, their reputation has changed, thanks to horrible owners

~~When~~ did it happen? New York, Chicago, Boston, Phoenix and Honolulu each saw 3,000 to 7,500 of Pitbulls turned in during the previous year that had been burned, beaten, starved, neglected and used for Dogfighting

Why did it happen? They thinks that Pitbull is meanest dog in the world because of their looks, their history, dogfighting, hurting little kids, their body looks so big. "People judges the book's cover" it's all about how people treats and teaching them.

HOW can you help? Telling people who hates pitbull that it's depend on how people treats them... We can adopt those pit bulls who has abused before or donate the money to the Pitbull Society

Figure 4.3- Worksheet 3.1: "Final Project-Research"
By JI - Retrieved from Lesson 3.1

Name: TP Date: 5/21/14

3.1 Final Project - Research

What's important to you?

Who is it about? Chimpanzee almost our human Body they live in forest (moist and dry forst)

What happened? Central and west Africa kill Chimpanzee for food and if they find baby chimpanzee will sale who is rich use this Pet.

Where did it happen? central, west Afraica

When did it happen? NOW 172,000 to 299,700 150,000, 250,000 individuals facing a high risk of extinction in the Wild/EBOLA outbreak kill many chimpanzee

oops

Why did it happen? Central, West Africa Poaching kill Chimpanzee beause food, EAt

HOW can you help? Donate at worldwildlife.org or Savethechimps.com

Figure 4.4- Worksheet 3.1: "Final Project-Research"
By TP - Retrieved from Lesson 3.1

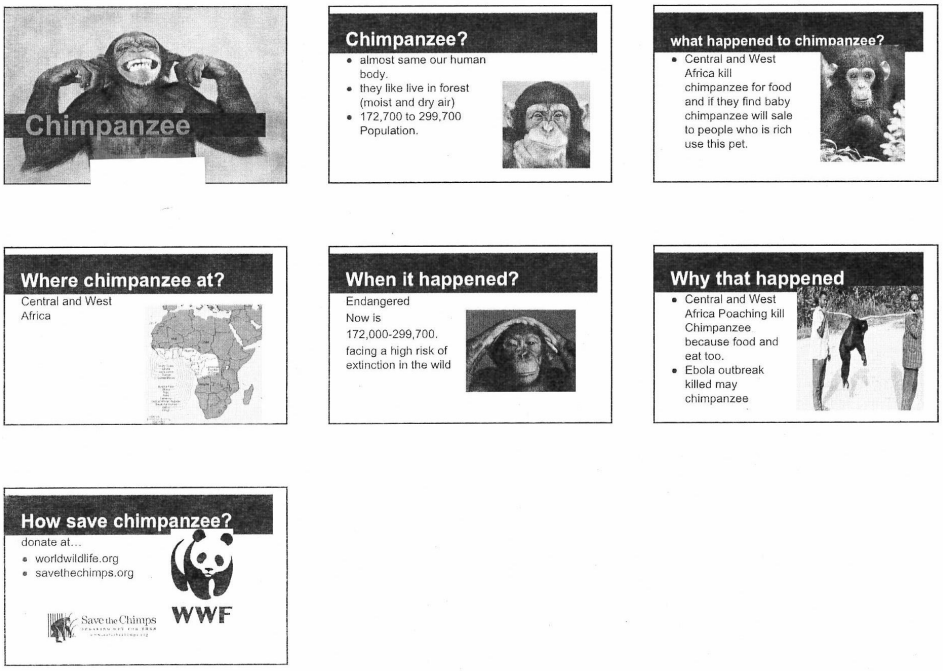


Figure 4.5- Google Presentation Document
By TP - Retrieved from Lesson 3.1

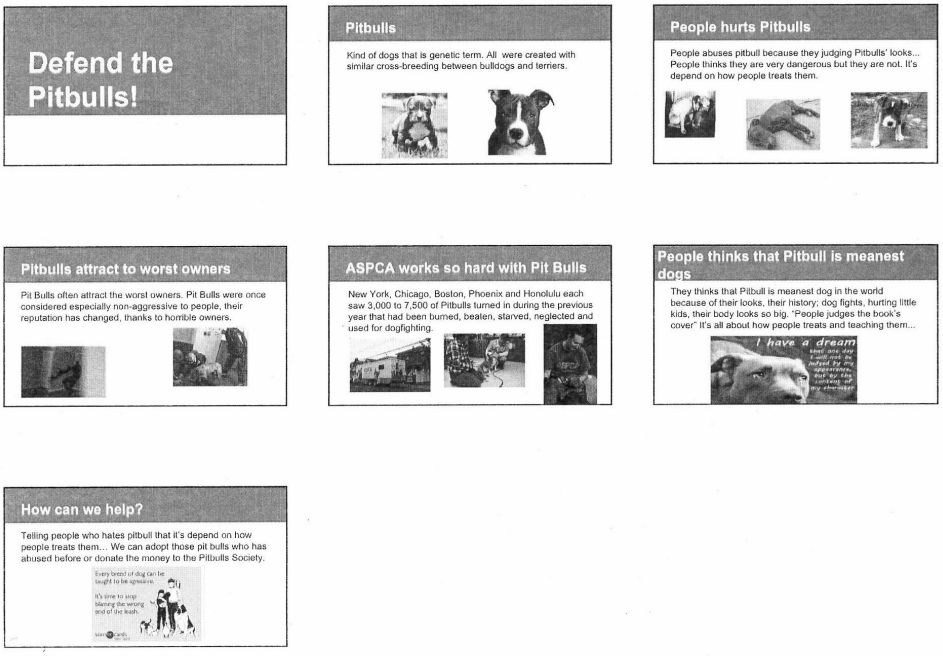


Figure 4.6- Worksheet 3.1: "Final Project-Research"
By JI - Retrieved from Lesson 3.1