

USING PROJECT-BASED LEARNING IN SPECIAL EDUCATION CLASSROOMS

by

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CERTIFICATION OF THESIS/PROJECT CAPSTONE WORK

We, the undersigned, certify that this project entitled USING PROJECT-BASED LEARNING IN SPECIAL EDUCATION CLASSROOMS by Ashley M. Kilby, Candidate for the Degree of Master of Science in Education, Curriculum and Instruction in Inclusive Education, is acceptable in form and content and demonstrates a satisfactory knowledge of the field covered by this project.



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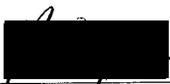
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ABSTRACT

This curriculum project investigates the use of Project-Based Learning (PBL) within special education classrooms. PBL is a student centered, evidence based practice that allows students to connect academic content to real-life investigations. Using PBL allows special education teachers to increase student motivation & socialization, target students' Individualized Education Plans (IEP's), imbed cross-curricular concepts into one project, and begin IEP transition services in order to prepare students for life after school. Specifically, this curriculum is designed for a fourth grade resource room. This curriculum allows students to further investigate the Haudensaunee Culture that resides within New York State. Students play the role of a museum curator and design various artifacts to display in their museum to parents and community members.

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Chapter 1- Introduction

Problem Statement

Prior to No Child Left Behind (NCLB); and the Individuals with Disabilities Education Improvement Act (IDEA), education of students with disabilities was not mandated by either state or federal government (IDEA, 2004; NCLB, 2002). This meant that schools did not have to provide an education to students with a disability (SWD). SWD were treated unfairly and did not have access to the same education as their peers. Since the federal mandates of IDEA and NCLB have been in effect, special education has grown and evolved significantly. Public Law 107-110 (NCLB, 2002) ensured that, “All children have a fair, equal, and significant opportunity to obtain a high-quality education, and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments” (p. 15). In addition to NCLB, states and districts are also required to follow IDEA mandates. Fitzpatrick and Theoharis (2014) outlined the six key principles of IDEA as: zero reject, nondiscriminatory evaluation, least restrictive environment, parental participation, procedural due process, and appropriate education. These mandates have made school districts responsible for the education of all students through public law and changed the way students are taught all around the country.

Under IDEA, students with disabilities are to be provided an appropriate education that is outlined in detail in their Individualized Education Plan (Griffith, 2015). The Individualized Education Plan (IEP) is individualized to each specific student and describes the way that the student performs academically, socially, and physically. The plan also indicates how the student learns best and identifies the student’s strengths and needs. One of the most important parts of an IEP is the programs and services section. This section indicates the least restrictive

environment and additional services that the student will receive in order to be successful in school. Most students who are identified as having a disability under IDEA are instructed as inclusion students. Inclusion is when students with disabilities participate in general education classes with grade level peers. As an additional support for success, these students usually receive resource room services to address the academic needs stated in their IEP. While in resource room, the special education teacher the teacher is able to instruct students on each core content area. This instruction is a pre-teaching or re-teaching of the material taught in general education classes which targets the difficult concepts students do not understand.

Special Education teachers are very knowledgeable when it comes to the variety of different disabilities and how to handle academic challenges. However, there is still controversy on the best practices for instructing students with disabilities in the resource room setting. It is difficult for a special education teacher to design lesson plans that are evidence-based, target IEP goals, and also address all the content areas in an engaging way for the students. One evidence-based practice that is being implemented in all types of classrooms is Project-Based Learning (PBL). Project-Based Learning enhances student learning in various ways. The key aspects of PBL are learning by doing, investigating real life problems, collaboration and the end product. Project-Based Learning allows students to investigate a real life situation related to a class topic and show what they know through the projects end result (Hovey & Ferguson, 2014). Project-Based Learning is an effective teaching method to use especially for students with disabilities. It allows them to make connections between their own life and what is being learned in the classroom. Project-Based Learning also promotes positive social interactions, hands-on learning, and long term schema of the material. Learning is difficult for these students, but teaching

through PBL can help them have a better understanding of the content in a way that relates to them.

To utilize Project-Based Learning to its highest potential, special education teachers could create project based learning opportunities that are also cross-curricular. A cross-curricular project would integrate the four core subjects within a real life problem. Cross-Curricular Project-Based Learning will not only benefit the students because it is engaging; and meaningful; but it will also benefit the special education teacher. In doing so, the special education teacher can target each student's IEP goals, instruct students on the difficult content for their core classes, and assess student learning on the material all in one project.

The concept of Cross-Curricular Project-Based Learning could significantly impact the special education field. Teachers can embed multiple concepts and ideas into one which will make their lessons more effective. Students will be able to learn and relate to the material in an engaging way. It is difficult as a special education teacher to motivate students to want to learn. However, I believe that this can be done through the implementation of Project-Based Learning in special education classrooms.

Personal Interest

In my own experiences as a student, Project-Based Learning opportunities reside in my memory greater than traditional lectures. When I think back to my own school days, I can easily think of collaborative hands-on learning experiences that we did in class. For example, in fifth grade, our desks were organized into groups to represent Native American Tribes. In that group, we worked collaboratively to research information on our tribe and eventually we dressed up in attire like our tribe and presented our findings to our classmates. Although this was only in social studies, we sat in those groups all day together and each had specific roles, as did the traditional

tribe itself. Had we learned this in a traditional lecture setting, I would not have been able to recall this information. Another time that comes to mind from high school is working collaboratively in biology to make plant and animal cells. To this day, I can picture what a mitochondria looks like and its role within the cell as the “mighty” mitochondria, which provides energy to the cell. Had I just learned this in class from note taking or reading it in the textbook, I probably would have only learned it for the test and forgot about it after that.

As a teacher now, I want my students to remember the curriculum that I teach with this deeper understanding rather than just for the exams that I give. I learned many other things in school, however, the opportunities I had to work with others in a Project-Based setting are the ones that I remember the most. In addition to the benefits on curriculum, I also see a huge importance for Project-Based Learning within the classroom to prepare our students for life after school. Project-Based Learning revolves around collaboration with others and real-world application. These skills are essential for our students to learn in order to be successful in their future career and life endeavors.

Purpose Statement

The main purpose of my curriculum project is to investigate the use of Project-Based Learning within the special education population. Project-Based Learning has been implemented in general education classrooms and exhibited many benefits to student understanding and long term schema of the curriculum. However, its effects within the special education classroom need to be explored as well. With this project I will create a Project-Based Learning Curriculum linked with the current New York State fourth grade ELA Module 1A: Haudenosaunee (Iroquois) culture. Within the next chapter, I will outline the relevant research related to special education services within New York State as well as the implementation of Project-Based

Learning within various classrooms. The following pieces of literature show the importance and necessity of using Project-Based Learning within Special Education populations.

Chapter 2- Review of the Literature

With the demands of special education within New York State, I will create a curriculum that addresses the instruction of these students through best teaching practices. I have reviewed many articles and studies that demonstrate evidence based practices to use with students in the classroom. Through this, I have realized the best way to instruct students with disabilities in a way that fits the demands of special education; by using Project-Based Learning (PBL). PBL correlates with many of the components of special education. Using PBL in a special education class can be integrated with targeting Individualized Education Plan (IEP) goals, making cross curricular connections, and preparing students for the future. Like many instructional strategies, PBL poses challenges as well. The challenges of Project-Based Learning are minimal in comparison with the benefits that students will gain from this learning opportunity. In the following essay, I will provide a background of PBL and its use within the special education setting as a means for creating a PBL curriculum to use in a 4th grade special education classroom.

Students with Disabilities

According to the U.S. Department of Education, students with disabilities (SWD) made up 15.6% of the student population within New York State during the 2011-2012 school year. This is a high rate in comparison to the national average of 12.9% of SWD. SWD receive modified instruction under special education services within New York State. The New York State Department of Education (NYSED) commissioner's regulation defines special education as:

Special education means specially designed individualized or group instruction or special services or programs, as defined in subdivision 2 of section 4401 of the Education Law, and special transportation, provided at no cost to the parent, to meet the unique needs of students with disabilities. (Section 200.1, ww)

The setting in which SWD receive individualized instruction is also an important aspect to consider prior to implementing specific teaching strategies. It is expected by federal law that SWD have access to general education curriculum with non-disabled peers as much as possible (Agran, Wehmeyer, Cavin, & Palmer, 2010). This term is known as the least restrictive environment.

Least restrictive environment. The Individuals with Disabilities Education Act (IDEA) revised in 1997 states that SWD must be taught within the least restrictive environment (LRE) classroom setting. Such environments should provide students with learning opportunities as closely related to the general education curricula as possible (Deshler, Lenz, Bulgren, Schumaker, Davis, Grossen, & Marquis, 2004). Resource room services are one way that students can receive additional instruction but also have access to the general curriculum.

Resource room. Instruction in a resource room setting is one program type that provides SWD the most access to the general education curricula. Students who receive these services are in general education classrooms for most of the day. However, these students receive individualized instruction for a small portion of the day in order to target their individual needs across all content areas. The NYSED commissioner's regulation defines a resource room as:

Resource room program means a special education program for a student with a disability registered in either a special class or regular class who is in need of specialized

supplementary instruction in an individual or small group setting for a portion of the school day. (Section 200.1, rr)

Special education teachers who instruct SWD in a resource room setting can use PBL to meet the dynamic needs of these students in a precise way. PBL is a strategy that can target IEP goals, provide cross-curricular learning experiences, and prepare SWD for transitioning into the real world after school.

Project-Based Learning

One evidence-based practice that addresses the complex needs of elementary students is Project-Based Learning (PBL). “Project-based learning emphasizes educational opportunities that are student-centered, collaborative, and integrated with real-world issues and practices” (Guyen & Duman, 2007, p. 77). Although the term “Project-Based Learning” is most commonly used today, instructional methods implementing the same components of PBL can also be known as project learning, inquiry-based learning, or problem-based learning. The key components of PBL originated from a laboratory school in Chicago founded by progressive educator John Dewey (Hovey & Ferguson, 2014). The key components of PBL are formulating a research question of interest, investigating a real-life problem, collaborating with others and demonstrating understanding of the topic.

Formulating a research question. Project-Based learning is a student-centered approach that allows students’ to take ownership of their own education and learning opportunities. To start a PBL activity, each student will formulate a research question to investigate. Allowing students to formulate their own research questions gives meaning to the learning process by connecting new learning with students past experiences and prior-knowledge (Filippatou & Kaldi, 2010). Whaley (2007) also cautioned, “Don’t sell students short in their abilities to think

critically and make decisions about their learning” (p. 10). Especially when working with elementary students, teachers should allow students to take charge of their learning. For example, in a recent study conducted at a homeless shelter, one of the students chose to investigate the topic of poverty and another researched welfare. In this study, “students were responsible for their own learning and had to use the higher-order thinking skills of planning, problem solving, and reflecting on daily experiences at the shelter” (Carr & Jitendra, 2000, p. 42). In addition to formulating a meaningful research question, PBL also challenges students to connect their learning experiences with real-life problems around them.

Investigating real-life problems. Another critical aspect of PBL is for students to investigate real-life problems. Connecting the curriculum content with their personal real-life experiences helps students see the purpose in learning. Students can gain a deeper understanding and see the benefits of the content within their personal lives (Guyen & Duman, 2007). Students from a science, technology, engineering and mathematics (STEM) school in the Midwest were able to do just that. At this STEM school, teachers implemented a rigorous curriculum through PBL experiences with real-life applications as well as cooperative group learning. Students attended this particular school for an entire year. Throughout the school year students investigated real-life problems when they attended advisory classes on a weekly basis. Here, students would explore service learning and different community experiences along with scientists, engineers, and other professionals (Bargerhuff, 2013). Additionally, students not only practiced 21st century skills by collaborating with professionals from the community but also with their peers. A strength of the PBL instructional method is the focus on 21st century skills, problem solving, creativity, and group collaboration (Hovey & Ferguson, 2014).

Collaborating with others. Collaboration is a 21st century skill that students need to learn not only for success in school but also especially for their future lives (Hovey & Ferguson, 2014). As students participate in PBL opportunities they acquire the skills needed to effectively engage in conversation with others. Students learn how to share and listen to different viewpoints. Massey and Burnard (2006) agreed that interaction and collaboration are essential aspects of the work. PBL is a lengthy process that requires commitment from each individual and a collaboration of ideas amongst participants in order to reach its fullest potential. Collaboration skills are maintained throughout the entire product creation (Bargerhuff, 2013). Students are able to get feedback from their peers and to improve their own products throughout these interactions. According to research conducted by Lambe (2007), students indicated that they did not feel uncomfortable with their PBL experience and 98.3 % of participants felt that collaboration was an essential part of the experience. After investigating and collaboration, students create a final product to show their peers, parents, school district, and community.

Demonstrating the final project. After engaging in the investigation of student driven, real-life problems and collaboration with classmates, students then get to demonstrate what they have learned to their peers and community. Students take pride in their work when they have spent so much time and effort investigating and solving the problems that they decided to research. In a longitudinal PBL study called, "Project Hour," students investigated their topics every Friday over the course of a school year. They were finally able to show off their projects to the whole school at the end of the school year. Student projects were displayed in the school for parents, and community members to see (Massey & Burnard, 2006). Students displayed a prolonged effort and evidence of meaningful learning in their end products. In Project-Based

Learning the sharing of the product is the culmination of each student's initiated learning objective from day one.

Positive Outcomes of Project-Based Learning

Implementing the four key components of PBL properly will result in many positive outcomes for students. Participating in PBL experiences will increase socialization for students through peer collaboration. Students also become motivated to learn when they know the purpose for learning and can connect it with their personal interests. Lastly, PBL prepares students for the future when investigating real-life problems.

Socialization. PBL provides many opportunities for elementary students to engage in positive socialization with peers. As students grow and develop, it is essential to keep their psychosocial development changes and needs in mind. Creating PBL activities will assist the teacher in meeting these demands. Socialization with peers strengthens students' self-esteem, pride, and responsibility within the project (Casale-Giannola, 2011; Carr & Jitendra, 2000). Students also become active learners showing interest in others' topics. Interacting with others builds confidence in their own abilities (Massey & Burnard, 2006).

Motivation. The rigor of academic expectations in school can hinder student motivation. Implementing project-based learning within the classroom can encourage those students who may not see the point or value in academics. Whaley (2007) asked teachers what they learned about the value of using PBL. One response related to motivation was that, "I have never seen my students so excited about anything. They begged to work on their project everyday" (p. 10). This shows the power of intrinsic motivation where students were not forced to learn something about a topic, but wanted to engage with the problem they had identified. Students in another

study claimed that they were much more motivated to learn through PBL compared with traditional lectures (Filippatou & Kaldi, 2010).

As students continue through school it is critical to keep students motivated in their learning. A recent study was conducted with nine students at risk of dropping out of school. The basis of this study was to motivate students in continuing their education. These students participated in a PBL experience working in local homeless shelters. Students were able to choose a topic related to the shelter in order to investigate more. Throughout the project, students were able to connect with the topic on a personal level. Consequently, they became motivated to come to school on a daily basis. Suddenly, these at risk students were showing success within the classroom. It was reported that through the process of this project, students gained confidence, self-esteem and enthusiasm (Carr & Jitendra, 2000).

Preparation for future employment. Investigating real-life problems allows all students to prepare for their future lives. Connecting learning in the classroom to a real-life situation allows students to understand the ways in which they can use the information they gather in a future career (Güven & Duman, 2007). Students also learn valuable workplace skills such as collaboration, time management, and self-direction when participating in PBL activities (Filippatou & Kaldi, 2010). These skills can be transferred to other aspects in life. Fromm (2015) reported that students were readily able to transfer the skills learned through PBL to activities such as planning family vacations.

PBL benefits students' socialization, motivation and preparation for the future. As students near graduation, they should be looking ahead to their future lives and developing qualities that will help them be successful in life. Specifically, SWD would benefit from the key components of PBL as well as the positive outcomes. The key aspects of Project based learning

align with the dynamic needs, instructional settings, and eventual transitioning services for SWD as they approach the end of their high school career.

Implementing PBL in a Resource Room

The key components of PBL align with the practices that resource room teachers already do but in a more engaging and motivating way for students. When students attend resource room services for part of the day, the special education teacher primarily focuses on each student's IEP goals, re-teaching of information from the four core classes, and preparing students with real world skills such as collaboration and problem solving skills. Generally, each of these topics is taught in isolation from one another. However, when implementing a PBL experience in a special education classroom, the teacher can embed each of these aspects into the project.

Target IEP goals. Students with special education services such as resource room instruction have an IEP, which is a written document to meet the unique educational needs of a student with a disability. The IEP is a detailed description of each student's current academic, physical, and social, strengths as well as needs. Goals are then created to target the student's deficits. PBL is an instructional strategy that can target each student's IEP goals. In a study done by Carr and Jitendra (2000), students participated in a multi-media PBL experience that targeted student goals for reading, writing, and speaking. The teachers in this study were able to teach a project-based lesson but also integrate the students' needs according to their individual reading/writing level. In another study conducted by Whaley (2007), PBL was done in an inclusive setting that allowed teachers to integrate the students' IEP goals and assessments into the project itself. Although it was time consuming for the teachers to create, they stated that it was beneficial because it not only taught the standards but teachers were also able to document the degree to which each student was progressing toward their IEP goals (Whaley). Many SWD

have multiple IEP goals that pertain to variety of skills or subject areas. One way in which special education teachers can address multiple IEP goals in one lesson would be to create a PBL experience that is also cross-curricular.

Cross-curricular goals. PBL is beneficial when linking multiple concepts into one. This teaching principle is especially helpful for SWD to make connections across the curriculum. Projects promote meaningful learning experiences for these students by connecting new learning to students' past experiences, prior-knowledge, and cross-curricular concepts (Filippatou & Kaldi, 2010). Traditional ways of teaching taught each subject area in isolation. However, Cross-curricular PBL allows students to explore, foster different talents, and carry the skills obtained across all curricular lessons (Massey & Burnard, 2006). In a study conducted in by Filippatou and Kaldi (2010), students with special education needs participated in a cross curricular PBL unit on sea animals. The results of this study found that the students with learning difficulties in the project-based setting scored significantly higher than did the students in the traditional setting. Whaley (2007) agrees that model activities for PBL need to be cross-curricular, integrated with real-world issues, and long-term. As students' progress through school, another key component of a student's IEP is the transitioning services, which begin at age 15 and outline the student's aspirations after high school.

Transition services. As part of educational law, the IEP must also describe the coordinated set of transition services to address the student's needs in moving from school to adult life (Mazzotti et al., 2009). The transition services outline the career that the student would like to have in the future and what the skills that they need to learn prior to graduation in order to be successful in that particular career choice. Carr and Jitendra (2000) stated that, "focusing on student strengths and realistic post-graduation goals and skills may be the key to successful and

meaningful educational programming” (p. 43). As educators, it is essential to provide students with learning experiences that will help them meet their life goals. PBL targets many of the social skills students will need for future employment, which correlates with the transition services outlined in the IEP. The special education teacher can easily address the transition services in the IEP while implementing PBL in the classroom. Research by Guven and Duman (2007) supported the idea that children gain benefits throughout their life by participating in PBL opportunities. While it is important to teach students content while attending school, it is also important to stimulate their intrinsic motivation to learn which will, in turn, reflect on their independent skills and their own behaviors upon graduation in the workforce (Massey & Burnard, 2006). Despite the positive outcomes on the future of both students and teachers, PBL also triggers minor challenges.

Challenges of PBL

Although PBL has been proven to be an effective teaching strategy it also poses challenges for teachers. Some challenges that teachers face with implementing PBL include lack of professional development, time constraints and allowing student control over learning. In a survey done by Hovey and Ferguson (2014), teachers and administrators identified a need for more professional development training on PBL. Professional development opportunities allow teachers to develop the skills to implement a new teaching strategy in the classroom. Even after attending a professional development opportunity on PBL, teachers still feel they need more practice and information in order to fully adopt this strategy in the classroom. (Tamim & Grant, 2013). Creating cross-curricular project-based lessons can be time consuming for special education teachers. It is challenging for teachers to find the time to create traditional lesson plans let alone a PBL opportunity for students that integrates the four core subjects, IEP goals, and

transitioning services. Lastly, teachers have difficulty allowing students to take control of their own education. Students need to learn self-regulatory skills before being able to productively work in a project-based setting (Agran et al., 2010). This is a skill that teachers need to model with students and be comfortable with in their classroom before implementing PBL. Many teachers are concerned that the student-centered approach to PBL will lead to inappropriate student behavior (Fromm, 2015; Tamim & Grant, 2013). However, having a definite classroom management structure and teacher modeling of appropriate behavior for PBL experiences beforehand will eliminate some of these challenges to student-centered learning.

The positive outcomes of using cross-curricular PBL in a special education classroom outweigh any of the challenges that it may possess. New York State Department of Education, administrators, and teachers are aware of the various needs SWD have. We all need to work together, continue to research PBL, attend professional development opportunities and create PBL experiences in order to implement and utilize in special education classrooms even if it is time consuming. In doing this, students will be more motivated to learn, stay in school, graduate from high school, and most importantly; develop the essential skills needed for future employment.

Conclusions

In completing this review of literature, there are many studies outlining the benefits of Project-Based Learning (PBL) with regular education students of all ages. However, there is a lack of literature extending PBL to the special education population. Thus, it is necessary to apply the benefits found in the review of PBL to this population. It is obvious through my research that PBL directly correlates with the components of special education. As a result, I have created a curriculum that applies all the positive aspects of PBL with SWD. In the process

of creating a Project-Based Learning curriculum for fourth grade special education students, I hope to add to the literature of the efficacy of using Project-Based Learning with the special education population in New York State. In the next chapter, I will detail the methods that I used in creating this curriculum project.

Chapter 3- Methods

Introduction

My curriculum project sought to create a Project-Based Learning (PBL) environment for Students With Disabilities (SWD). In the rural areas of New York State, the population of special education students is high. Instruction of these students is required by Public Law 107-110 (No Child Left Behind) and Public Law 108-446 (The Individuals with Disabilities Education Improvement Act). It is essential that special education teachers use evidence-based instructional strategies to address the academic, social, physical, and behavioral needs of students. However, there are no specific guidelines on which strategies special educators should use. PBL is one instructional strategy that can be used cross-curricular to address all of the demanding needs of special education. In using Project-Based Learning with this population, it will not only make the curriculum meaningful and connect with their personal lives, but it will also prepare students for life outside of school. In the following chapter, I will detail the methods supporting this curriculum project.

Conceptual Frameworks

Within this curriculum, there was an overarching theme of Native American tribes in New York State history. However, students will engage in an exploratory single case design in context of the theme. This curriculum was founded on past case studies in which PBL was used successfully within the classroom setting (Carr & Jitendra, 2000; Whaley, 2007; Fromm, 2015).

Having completed this curriculum, I am now able to implement the curriculum and observe the effects of using Project-Based Learning with the special education population. Important factors to consider when observing the implementation of this curriculum are its effects on student motivation, attitude, understanding of curriculum and ability to work with others in a student centered learning environment. In addition, one would want to compare the use of Project-Based Learning instruction with the traditional classroom module instruction. This curriculum will help teaching professionals determine the best instructional practices to use with special education students.

Audience

The intended audience for this curriculum is districts within New York State considered to be high needs districts based on special education enrollment. Particular districts in the state that are high needs districts can be found on the New York State Department of Education website (2015). As a current special educator in the state, I chose this as the focus group for this curriculum project. More specifically, I created the curriculum for a 4th grade special education resource room setting. This curriculum is different from the traditional instruction in a resource room setting because it embeds the curriculum from the general education setting while also targeting each student's individualized IEP goals. This curriculum was founded on the principles of PBL (Hovey & Ferguson, 2014; Guven & Duman, 2007). In using the PBL approach, SWD will be able to make connections between taught curriculum and the world around them. The end result is to prepare students for the real world and life outside of school.

Procedure

In planning this curriculum, I immersed myself in both New York State Common Core

Learning Standards and Part 200 regulations for special education in order to ensure that my curriculum will meet the needs of a 4th grade resource room in the state of New York (NYSED, 2015; CCLS, 2015). I also attended a professional development opportunity provided by the Boards of Cooperative Educational Services (BOCES) this past summer on the use of PBL in the classroom in order to gain additional insight on its use in the classroom. It is essential in my research that I stay current with this practice and the best ways to implement it within my own classroom. I used past research in PBL as guide to create this curriculum with special needs students in mind (Carr & Jitendra, 2000; Whaley 2007).

The first step in creating this curriculum was to identify the main content area that the curriculum would focus on. English Language Arts (ELA) was determined to be the largest need by majority of special education students. At the PBL training I went to over the summer of 2018, we were given many tools to use to get started with creating a PBL unit. Educators at the training were also given time to explore and brainstorm ideas for PBL opportunities that would benefit our students. It was here that I came up with the driving question for the unit, “What artifacts would we choose to display as museum curators designing an exhibit about Haudenosaunee Culture in New York State?” Next, I began to take a deeper look into the New York State Grade 4 ELA Module 1A- Haudenosaunee: Consensus Building in Community, which has been adopted or adapted by district across the state (NYSED, 2011). This information allowed me to map out the resource room lessons that would align with what students would be learning in the general education setting each day. From there, I created the first seven lessons in which students would investigate the meaning of vocabulary terms within the driving question. Follow lessons include student independent investigations and creations of their own artifact chosen to be displayed in the museum. Final lessons included writing a finalized display plaque

for students to demonstrate facts along with their artifact for visitors of the museum, presenting their museum to family and community members. To connect this PBL experience back to the real world, students would then visit a local museum on the Haudenosaunee culture. The following section displays the overall scope and sequence of this project, along with its correlation to module lessons instructed in the general education setting each day.

Scope and Sequence

This curriculum project is cross-curricular in nature, addressing each subject area within the 4th grade standards and include a culminating project presentation of various Native American artifacts. As students work toward a common goal of creating a Native American Museum, they will each be researching an artifact of interest and creating it for display in the museum. As they research, students will also be addressing their individual academic goals as outlined in their IEP and incorporating curriculum learned within the general education setting. The curriculum is aligned with the general education unit of study on Native Americans and will cover approximately one month (NYSED, 2011). It is essential that students engage in this PBL experience in the resource room setting in correspondence with related instruction in the general education setting. In order to make connections between what is happening in the general education setting with resource room lessons, the teacher must specifically design linear instruction. Aligned curriculum will allow students to make deeper connections in order to develop long-term schema of the material taught. The following page displays the scope and sequence for both the general education module lessons along with the resource room lessons specifically for this resource room curriculum. The project calendar template used in creating this scope and sequence was a resource tool provided at our professional development training over the summer. The template was designed by The Buck Institute for Education (2011).

P R O J E C T C A L E N D A R					page 1
Project: Haudenosaunee Cultural Artifacts			Time Frame: 3 Weeks		
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	
P R O J E C T W E E K O N E					
General Education Setting					
<ul style="list-style-type: none"> Gallery Walk of Various Symbols including ones of the Haudenosaunee Culture Students fill out graphic organizer (I notice/wonder) when completing the gallery walk 	<ul style="list-style-type: none"> NYS Module 1A Lesson 1 Listen and Read The Haudenosaunee Thanksgiving Address introduction and section 1 Video on The Thanksgiving Address 	<ul style="list-style-type: none"> NYS Module 1A Lesson 2 Continue reading The Thanks giving address sections 2-5 with close reading strategies Fill in student anchor charts on the Thanksgiving Address 	<ul style="list-style-type: none"> NYS Module 1A Lesson 3 Close Reading of The Birth of the Haudenosaunee in pairs 	<ul style="list-style-type: none"> NYS Module 1A Lesson 4 Continue close reading of The Birth of the Haudenosaunee in pairs/review whole group Text-based Questions on The Birth of the Haudenosaunee 	
Resource Room Setting					
<ul style="list-style-type: none"> Hand out student PBL Learning Packet Jack Daws Kit Center Rotations Introducing the Haudenosaunee Culture Exit Ticket 	<ul style="list-style-type: none"> Introduce Driving Question Students Identify unknown vocabulary Investigate/record Definitions Anchor Chart/Exit Ticket 	<ul style="list-style-type: none"> Investigate vocabulary word: Artifact Book Walk Wrap-Up with Anchor Chart to collaborate ideas Exit Ticket 	<ul style="list-style-type: none"> Investigate vocabulary word: Museum Curator Group discussion Video Clip on Curator Record facts from video Share out facts/Exit Ticket 	<ul style="list-style-type: none"> Investigate vocabulary word: Exhibit Centers exploring different exhibits Packet work-rephrasing questions Exit Ticket 	

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
P R O J E C T W E E K T W O				
<p><u>General Education Setting</u></p> <ul style="list-style-type: none"> • Watch the story of the peace maker video • How was peace re-established within the Haudenosaunee? 	<ul style="list-style-type: none"> • NYS Module 1A Lesson 5 • Making connections between texts Birth of the Haudenosaunee and Thanksgiving Address • Note catcher, “Tracking my Thinking” 	<ul style="list-style-type: none"> • NYS Module 1A Lesson 6 • Investigations of the two row wampum belt • Mid-Module Assessment 	<ul style="list-style-type: none"> • NYS Module 1A Lesson 7 • Read “A Time to Talk” • Close read of “A Time to Talk” • Group work with guided questions about “A Time to Talk” 	<ul style="list-style-type: none"> •NYS Module 1A Lesson 8 •Video, “What is Wampum” •Students begin to create a wampum belt in groups with symbols to represent the Haudenosaunee in “A Time to Talk”
<p><u>Resource Room Setting</u></p> <ul style="list-style-type: none"> • Investigate vocabulary word: Culture • Discuss key aspect of a person’s culture • Graphic organizer on student’s own culture • Pair/Share • Exit ticket 	<ul style="list-style-type: none"> • Review Driving question • Choose 2 artifacts possible for exhibits • Sketch and include 3 key details • Determine final artifact exploration for each student 	<ul style="list-style-type: none"> • Students will be working on creating their artifacts for the following 4 lessons. They will have a variety of resources and modalities for displaying their artifacts. Entirely student led based on interest but must accurately display the Haudenosaunee. 	<ul style="list-style-type: none"> • Independent creation of artifacts; with teacher conferring throughout. 	<ul style="list-style-type: none"> • Independent creation of artifacts; with teacher conferring throughout.

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
P R O J E C T W E E K T H R E E				
<p><u>General Education Setting</u></p> <ul style="list-style-type: none"> • NYS Module 1A Lesson 8 Cont. • Students continue to work on a wampum belt symbols • Create accompanying graphic organizer in groups 	<ul style="list-style-type: none"> • NYS Module 1A Lesson 9 • Using graphic organizer create a paragraph to accompany wampum belt • Use key details and connection back to the text • Share out 	<ul style="list-style-type: none"> • NYS Module 1A Lesson 10 • End of module Assessment- Students create their own Wampum belt, but this time connect it to “The Birth of the Haudenosaunee and The Thanksgiving Address 	<ul style="list-style-type: none"> • NYS Module 1A Lesson 11 • Students finish the end of module assessment including their wampum belt and paragraph to accompany-this is independently done as an assessment piece 	<ul style="list-style-type: none"> • Real-world explorations • Class goes on a field trip to a local Haudenosaunee museum to make connections with what they have been learning over the course of 3 weeks in Module 1A Instruction
<p><u>Resource Room Setting</u></p> <ul style="list-style-type: none"> • Independent creation of artifacts; with teacher conferring throughout. 	<ul style="list-style-type: none"> • Work on writing piece to accompany Artifacts • Implement graphic organizers/tools for writing • Students begin to write 	<ul style="list-style-type: none"> • Continue to work on writing pieces • Use drafting, revising, and publishing format • Prepare writing for display in museum 	<ul style="list-style-type: none"> • Set up museums with artifacts • Display student Haudenosaunee museum to families and community members • Feedback forms • Reflection 	<ul style="list-style-type: none"> • Real-world explorations • Field trip to a local Haudenosaunee museum • Reflection piece upon arrival back to the school • Circle up and share out

Validity

This curriculum is credible across all 4th grade classrooms in New York State, especially those with a high percentage of SWD. It can be implemented in both special education classes as well as general education classrooms. In addition to its correlation with the curriculum demands for 4th grade, it can also be used in afterschool programs or gifted and talented populations. The framework for this curriculum can additionally be modified in order to suit the needs for investigation and research of other populations such as Hispanic, and African American student communities within the United States.

Conclusion

With the high demands from state and federal law, strategic instruction of students with disabilities is a must. It is my hope that with this curriculum, special educators will see the benefits of using cross-curricular Project-Based Learning within the resource room setting. In addition to the immediate benefits in the classroom, teachers will also be able to prepare students for transition outside of the classroom as well.

Chapter 4- Results

The previous chapter outlined the methodology as well as scope and sequence of the Haudenosaunee Culture Project Based Learning Curriculum. This cross-curricular unit is designed to review and extend student learning of the Haudenosaunee culture within the resource room setting for Students with Disabilities. The following section contains the resource room lesson plans that correspond with Grade 4 Module 1A- Unit 1: Haudenosaunee: Consensus Building in Community from the general education setting. In addition to the lesson plans, supplementary materials, worksheets, activities, assessments, and resources are available that coincide with the topics of each lesson.

Prerequisite

When students come to the resource room setting, they will have already learned the corresponding Haudenosaunee module lesson within the general education setting. Students will be asked to recall information from the general education lessons in order to develop a deeper understanding of the topic. Students will need to make connection with what they are learning in the general education setting to the essential question of the PBL unit: Haudenosaunee Culture. Students will not be required to bring any lesson materials to resource room. All materials will be provided by the special education teacher.

Online Resources

For questions on the Haudenosaunee culture, classroom activities, extended learning opportunities or classroom materials educators may use the following websites:

- https://www.ducksters.com/history/native_american_iroquois.php
- <http://www.historyforkids.net/iroquois-tribe.html>
- <https://nativeamericans.mrdonn.org/northeast/iroquois.html>

Additional resource templates for creating your own Project-Based Learning units, such as a project calendar template, project design overview template and student rubrics can be found at the following websites:

- <http://www.bie.org/Resources>
- <http://www.bie.org/objects/cat/rubrics>
- <https://hqpbl.org>

Intended Learning Outcomes:

- Y Students will be able to create an artifact that accurately represents the Haudenosaunee culture.

Y Students will be able to explain the importance of their artifact within the Haudenosaunee culture to the larger community.

Y Students will be able to create a writing piece to correspond with their created Haudenosaunee artifact.

Learning Standards:

New York State Common Core Learning State Standards (2015), that align with this curriculum include:

Reading Standards

RI.4.3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

RI.4.4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

RI.4.10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Speaking and Listening Standards

SL.4.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.

SL.4.4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

Writing Standards

W.4.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a topic.

W.4.10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Lesson Plans

Week 1- Lesson 1: Jack Daws Entry Event

Goal (s): Students will begin to learn about the Haudenosaunee Culture through experiences with primary sources. This entry event is meant to get students hooked and excited to learn all about the Haudenosaunee Culture. Students will be given their own “Haudenosaunee Culture PBL Learning Packet” to track all learning objectives and personal project designs throughout this unit. The teacher will keep track of these packets and students are not required to bring any project materials with them to resource room each day. All materials will be provided for them.

Cross-Curricular Connections: Students will be connecting this resource room lesson with grade level ELA content. Students will also be using drawing skills (art) to create pictures of the primary sources at each station. Students will be practicing their own writing skills when answering content based questions throughout this lesson.

Objective (s): Students will be able to make inferences about the Haudenosaunee Culture based on 5 center rotations of primary sources related to the Haudenosaunee.

Materials:

- 5 Jack Daws Kits for center rotation
 - o Kit 1- Haudenosaunee 5 Nations; the names of the 5 nations and maps of the 5 nations across NYS past and present.
 - o Kit 2- Hiawatha Belt and Two Row Wampum Belt
 - o Kit 3- Haudenosaunee Games; Lacrosse and Snownake
 - o Kit 4- Haudenosaunee foods; the Three Sisters
 - o Kit 5- Haudenosaunee Crafts; corn husk dolls, bead work, Gustoweh
- Student PBL Learning Packets
- Pencils
- Timer

Key Vocabulary/ Academic Language: Haudenosaunee, Iroquois, Tribe, Nation, Hiawatha Belt, Wampum, Symbol, Gustoweh, Corn Husk Doll, The Three Sisters.

Procedure:

- Teacher will have classroom already set up with 5 center rotations around the resource room setting.
- Students will be given their “Haudenosaunee Culture PBL Learning Packets,” page 1 displays all the outlined tasks for lesson 1.
- First, students will be asked to recall information from ELA class that day. Here students will record what symbols they recall from the gallery walk in class.
- Next, the teacher will give instructions on expectations at each of the stations.
- Students will rotate through the stations with five minutes at each in order to investigate and record their findings at each station.

- After rotations are complete, the teacher will collect student learning packets and hand out the daily exit ticket as a form of assessment.

Week 1- Lesson 2: Driving Question

Goal (s): Students will be introduced to the overall driving question to this Project-Based Learning unit, “What artifacts would we choose to display as museum curators designing an exhibit about Haudenosaunee Culture in New York State?”

Cross-Curricular Connections: Students will be connecting this resource room lesson with grade level ELA content. Students will be using close reading strategies to identify unknown vocabulary words within the driving question.

Objective (s): Students will be able to identify unknown vocabulary words within the driving question. Students will be able to research the definition of these unknown words and record them in their Haudenosaunee Culture PBL Learning Packets.

Materials:

- Student PBL Learning Packets
- Driving question written on the white board
- Pencils
- Dictionaries
- Internet access via student iPads, laptops or computers
- Anchor Chart

Key Vocabulary/ Academic Language: Haudenosaunee, Artifacts, Museum Curators, Exhibit, Culture

Procedure:

- The teacher will have the classroom already set up with the driving question written on the white board. Teacher will explain that they will each be creating an end product linked to this driving question that they will be presenting to their parents and community members.
- Students will be given their “Haudenosaunee Culture PBL Learning Packets,” page 2 displays all the outlined tasks for lesson 2
- First, students will be asked to read the driving question closely and circle any unknown vocabulary words within the driving question.
- Next, the teacher will lead a discussion on the importance of those vocabulary words in order to understand the driving question and the task that they must complete.
- Students will then record the 4 unknown vocabulary words in their packets and use the dictionary/internet to determine the meaning of these words.
- To wrap up this lesson, the teacher will introduce an anchor chart that will be displayed in the classroom for the next 4 lessons. This anchor chart will be used to gather student ideas about artifacts that they could possibly use for their projects.

Week 1- Lesson 3: Artifacts

Goal (s): Students will know the definition of an artifact and be able to relate it to the Haudenosaunee.

Cross-Curricular Connections: Students will be connecting this resource room lesson with grade level ELA content. Students will be reading and writing throughout the lesson as well as making connections between ELA, Social Studies, and Art class.

Objective (s): Students will identify the first unknown vocabulary word within the driving question as “Artifact,” and be able to collaborate with their peers the definition of artifact that

they found through their investigations last class. Students will then be able to use their definitions of artifact to complete a book walk and identify a minimum of 6 different artifacts that they could re-create to display the Haudenosaunee.

Materials:

- Student PBL Learning Packets
- Driving question written on the white board
- Pencils
- Various books related to the Haudenosaunee
- Anchor Chart

Key Vocabulary/ Academic Language: Haudenosaunee, Artifacts, and any other vocabulary that is found within the book walk that students may notice.

Procedure:

- The teacher will have the classroom already set up with the driving question still written on the white board.
- Students will be given their “Haudenosaunee Culture PBL Learning Packets,” page 3 displays all the outlined tasks for lesson 3
- Next, students will be asked to recall the first unknown vocabulary word from last class, “Artifact.”
- The teacher will lead a discussion about the word artifact, where students will communicate their findings about the word from last class.
- Students will then be instructed to do a book walk through a variety of books about the Haudenosaunee to look for different artifacts linked to the Haudenosaunee. As students complete the book walk, they will record at least 10 different artifacts they

think relate to the Haudenosaunee in their Haudenosaunee Culture PBL Learning Packets

- To wrap up this lesson, students will be asked to report on their findings, and the teacher will compile student responses on the anchor chart.

Week 1- Lesson 4: Museum Curator

Goal (s): Students will understand the role of a Museum Curator. Students will take on this role for the culminating activity in choosing which artifacts should be displayed in their museum.

Cross-Curricular Connections: Students will be connecting this resource room lesson with grade level ELA content as well as social studies content in order to gain a deeper understanding of the history of the Haudenosaunee culture. This lesson also connects with the arts in thinking of artifacts that would best be displayed in a museum.

Objective (s): Students will identify the second unknown vocabulary word within the driving question as “Museum Curator,” and be able to collaborate with their peers the definition of a curator that they found through their investigations last class. Students will then engage in a “Watch, Think, and Write” activity where they will identify the roles of a museum curator.

Materials:

- Student PBL Learning Packets
- Driving question written on the white board
- Pencils
- Video on Museum Curators
- Anchor Chart

Key Vocabulary/ Academic Language: Haudenosaunee, Artifacts, Museum Curator

Procedure:

- When students arrive to the resource room setting the anchor chart for identifying different artifacts that could be used to represent the Haudenosaunee will be displayed. The teacher will make a connection to the last resource room lesson as well as the general education ELA class from earlier in the day by asking students to recall what an artifact is, and if they noticed any new artifacts that they could add to the list from the reading of, “The Birth of the Haudenosaunee,” ELA class that day.
- Any new artifacts that students recall can be written on the anchor chart as this is the place to gather all possible ideas that students could eventually use as their artifact display.
- Next, the driving question will be written on the board. Students will be asked to identify the second difficult vocabulary word within the driving question as, “museum curator.”
- The teacher will then circle this word as it is the focus for lesson number 4.
- The teacher will lead a discussion with the students about what they found out about a museum curator from their investigations in lesson 2.
- Students will then participate in a watch, think, and write activity where they will watch a small clip about museum curators.
- As students watch a short clip about the role of a curator, the teacher will play the video, stopping periodically within the clip for students to stop and think about what they are watching. Students will write down facts about curators during this time.
- When the video clip is over, students will participate in a turn and talk with a partner next to them about what they learned about museum curators.

- Lastly, the class will share out together what a museum curator does and some of the various roles of a museum curator.
- If there is time at the end of the resource room session, the students can complete an exit ticket for the teacher to assess student understanding of concepts taught so far.

Week 1- Lesson 5: Exhibit

Goal (s): Students will know the definition of an exhibit and be able to relate it to the job of a museum curator.

Cross-Curricular Connections: Students will be connecting this resource room lesson with ELA, history, art, and business.

Objective (s): Students will identify the third unknown vocabulary word within the driving question as “Exhibit,” and be able to collaborate with their peers the definition of exhibit.

Materials:

- Student PBL Learning Packets
- Driving question written on the white board
- Pencils
- Centers with photos of various museum exhibits around the world.
- Timer
- Anchor Chart

Key Vocabulary/ Academic Language: Haudenosaunee, Artifacts, Museum Curator, Exhibit, Theme

Procedure:

- When students arrive to the resource room setting the anchor chart for identifying different artifacts that could be used to represent the Haudenosaunee will be

- displayed. The teacher will make a connection to the last resource room lesson as well as the general education ELA class from earlier in the day by asking students to recall what an artifact is, what a museum curator is, and if they noticed any new artifacts that they could add to the list from their close reading, partner work, and test-based questions from ELA class that day.
- Any new artifacts that students recall can be written on the anchor chart as this is the place to gather all possible ideas that students could eventually use as their artifact display.
 - Next, the driving question will be written on the board. Students will be asked to identify the third difficult vocabulary word within the driving question as, “exhibit.”
 - The teacher will then circle this word as it is the focus for lesson number 5.
 - The teacher will lead a discussion with the students about what they found out about a museum curator from their investigations in lesson 2.
 - Students will then rotate through 3 center stations where they will explore 3 different exhibits from museums around the world.
 - At the center stations, students will be asked to identify various parts of each exhibit such as the title of the exhibit, the theme of the exhibit, 3 important facts that are mentioned about the exhibit, what in the exhibit will grab the attention of visitors to the museum? Students will record their answers to these questions using full sentence structure and rephrasing of the questions within their answers.
 - Students will spend 8 minutes at each station. The teacher will set a timer and instruct students when it is time to switch stations.

- When students have finished all center stations, they will be asked to fill out an exit ticket telling what their favorite museum exhibit was from today, and what about that exhibit made it most interesting to you?

Week 2- Lesson 6: Culture

Goal (s): Students will know the definition of culture and be able to relate it to the Haudenosaunee and their own culture.

Cross-Curricular Connections: Students will be connecting this resource room lesson with grade level ELA content. Students will be reading and writing throughout the lesson as well as making connections between ELA, and Social Studies.

Objective (s): Students will identify the fourth unknown vocabulary word within the driving question as “Culture,” and be able to collaborate with their peers the definition of culture that they found through their investigations from lesson 2. Students will then be able to use their definitions of culture to fill out a graphic organizer about their own culture. Upon completion, students will pair up with a partner and discuss their own culture as well as how it compares to the Haudenosaunee.

Materials:

- Student PBL Learning Packets
- Driving question written on the white board
- Pencils
- Anchor Chart

Vocabulary/ Academic Language: Haudenosaunee, Artifacts, Museum Curator, Culture, Compare/contrast

Procedure:

- When students arrive to the resource room setting the anchor chart for identifying different artifacts that could be used to represent the Haudenosaunee will be displayed. The teacher will ask students to recall information from the past 3 resource room lessons by asking students to recall what an artifact is, what a museum curator is, what an exhibit is and if they noticed any new artifacts that they could add to the list from watching, “The story of Peace,” from ELA class today.
- Any new artifacts that students recall can be written on the anchor chart as this is the place to gather all possible ideas that students could eventually use as their artifact display.
- Next, the driving question will be written on the board. Students will be asked to identify the fourth difficult vocabulary word within the driving question as, “culture.”
- The teacher will then circle this word as it is the focus for lesson number 6.
- The teacher will lead a discussion with the students about what they found out about culture from their investigations in lesson 2.
- Students will then fill out the graphic organizer in their Haudenosaunee Culture PBL Learning packet about themselves to identify their own cultural characteristics.
- After completion of their graphic organizer, students will pair up with each other and share the important aspects about their individual culture. This will help student relate and understand each other as well as build personal meaning/connections with what culture means.
- Next, pairs will discuss similarities and differences between their cultures and the Haudenosaunee culture.

- Lastly, students will complete an exit ticket where they need to match the 4 important vocabulary words that they have learned over the past 4 resource room lessons to their accurate definitions. This is an assessment that the teacher can use to gauge students overall understanding of the driving question before they dig deeper into their culminating project tomorrow. If students are still not grasping the concept after this lesson, the teacher may need to implement additional activities/videos to re-teach the students before moving on.

Week 2- Lesson 7:

Goal (s): Students will each choose a final artifact that they will create for their museum.

Cross-Curricular Connections: This lesson connects with the ELA Common Core Learning Standards, fourth grade social studies curriculum of NYS history, and grade level art standards.

Objective (s): Students will identify 2 artifacts that they are interested in re-creating for their own classroom museum on the Haudenosaunee culture. Students will be able to draw a sketch for each along with identifying 3 key facts that could be used in the written description about the artifact.

Materials:

- Student PBL Learning Packets
- Driving question written on the white board
- Pencils
- Anchor Chart

Key Vocabulary/ Academic Language: Haudenosaunee, artifact, culture, exhibit, wampum, corn husk doll, eagle, tree of peace, gustoweh, bead work, longhouse, clan, 5 arrows, nation, and stone canoe

Procedure:

- Class will begin by going over the driving question. Students will be able to identify the meaning of the driving question.
- Students will then go over the anchor chart of possible artifacts they have gathered over the past 6 days both in the general education setting as well as the resource room setting.
- Each student will then choose 2 of their favorite artifacts which they wish to recreate as an art exhibit.
- Students will draw a sketch of their 2 artifacts as well as 3 key facts that can be used to create a descriptive plaque that will go along with their exhibit artifact.
- Once each student has completed this, they will conference with the teacher about their final choice for their artifact investigation and creation.
- The teacher (like a museum curator) will need to make sure that there is a variety of museum exhibits for the final museum. So, only one of each artifact will be created to ensure that the museum guests to get a well-rounded understanding of each aspect of Haudenosaunee culture.
- Prior to students leaving, they will have a final artifact chosen and begin the process for creating their artifacts.

Week 2- Lesson 8-Week 3 Lesson 11:

Goal (s): Students will create an artifact using multiple art modalities of the Haudenosaunee culture to be on display at their museum.

Cross-Curricular Connections: This lesson connects with the ELA Common Core Learning Standards, fourth grade social studies curriculum of NYS history, and grade level art standards.

Objective (s): Students will be able to use multiple resources to create realistic artifacts to be on exhibit at their Haudenosaunee museum. Students will demonstrate their knowledge of art in connection to the academic content taught in both ELA and Social Studies class.

Materials:

- Student PBL Learning Packets
- Pencils
- Anchor Chart
- Paper Mache
- Clay
- Rocks
- Sticks
- Markers
- Colored Pencils
- Corn husks
- Metal
- Paper
- Wood
- Cardboard
- Hot glue
- Beads
- String
- Paint
- Any other materials students may want to use to create there artifacts.

Key Vocabulary/ Academic Language: Haudenosaunee, artifact, culture, exhibit, wampum, corn husk doll, eagle, tree of peace, gustoweh, bead work, longhouse, clan, 5 arrows, nation, and stone canoe

Procedure:

- Over the course of these 4 classes, students will work on investigating their chosen artifact in depth and create it.
- In their PBL Learning Packets, students will need to record the title of their artifact exhibit, at least 3 key details to use in the exhibit description with resources, and its importance within the Haudenosaunee Culture.
- For Lesson #8 the teacher will provide the various materials listed above so that students can begin drafting and constructing their artifacts. In addition, the teacher will have a paper ready for students to make a list of additional supplies they would need to construct to their artifact.
- From there, the teacher can seek out additional supplies needed from the school art teacher or purchase them for student use.

Week 3- Lesson 12-13:

Goal (s): Students will create a writing piece to go along with their artifact exhibit.

Cross-Curricular Connections: Students will be connecting ELA, Social Studies, Art, and the writing process together in order to reach a deeper understanding of the Haudenosaunee culture.

Objective (s): Students will be able to write a descriptive writing piece (one of the text structures learned in ELA) to create a plaque to go along with their artifact exhibit. Students will be able to demonstrate their understanding of the writing process (drafting, revising, and publishing) when writing this final piece to accompany their artifact.

Materials:

- Student PBL Learning Packets
- Pencils
- Graphic organizers
- Final draft paper/Wooden Plaques/Computer Word Processing (depending on each students personal interest for their final written piece for their museum display)

Key Vocabulary/ Academic Language: Haudenosaunee, artifact, culture, exhibit, wampum, corn husk doll, eagle, tree of peace, gustoweh, bead work, longhouse, clan, 5 arrows, nation, and stone canoe

Procedure:

- Now that students have created their artifacts, they will write an accompanying description on their artifact.
- Students will use graphic organizers provided to create a descriptive piece on their artifact.
- Students will draft, revise with a partner, and finalize their writing pieces over the course of these 2 lessons.
- Once students have completed their revised drafts, they will choose a modality for displaying their writing with their artifact. Student options may include; neatly hand written on decorative piece of computer paper, using a slab of wood to write on, or creating a typed version on the computer. Other ideas that students may have for displaying this are welcome.

Week 3- Lesson 14:

Goal (s): Students will set up and present their Haudenosaunee artifacts to family and

community members as a cultural history museum.

Cross-Curricular Connections: This culminating activity connects ELA, Social Studies, and Art.

Objective (s): Students will be able to set up their Haudenosaunee museum. Students will be able to present in a professional manner to family and community members as though they are expert museum curators on this topic.

Materials:

- Student artifacts and description pieces
- Tables set up in the form of a museum
- Invitations to parents/community members (1 week prior to this date)
- Family/ community members in attendance of the presentation
- Other grade levels to explore the museum if desired by classroom teachers.
- Guest Feedback Forms

Key Vocabulary/ Academic Language: Haudenosaunee, artifact, culture, exhibit, wampum, corn husk doll, eagle, tree of peace, gustoweh, bead work, longhouse, clan, 5 arrows, nation, and stone canoe

Procedure:

- Students will begin this time by setting up their museum with their artifacts and description pieces
- Students will then present their artifacts as family, community members, and other classes explore their museum on the Haudenosaunee.
- Students will answer any questions the guests may have about their exhibit or the Haudenosaunee culture.

- As guests visit their exhibit, students will thank them for attending and ask that they fill out feedback forms if interested before they leave. (This is a constructive form of feedback and assessment for both the students and the teacher).

Week 3- Lesson 15:

Goal (s): Students will visit a real museum about the Haudenosaunee Culture.

Cross-Curricular Connections: Students will be connecting ELA, Social Studies, the arts, and the real world around them when visiting a real local museum all about the Haudenosaunee culture.

Objective (s): Students will be able to formulate questions for the employees at the museum. Students will be able to compare and contrast their museum with the real museum that they attended. Students will be able to make connections between the ELA module and the real life exhibits (seeing what they have been learning first hand)

Materials:

- Student/chaperone tickets into the museum
- Bus transportation to and from the museum
- Student follow up questions after the field trip to the museum

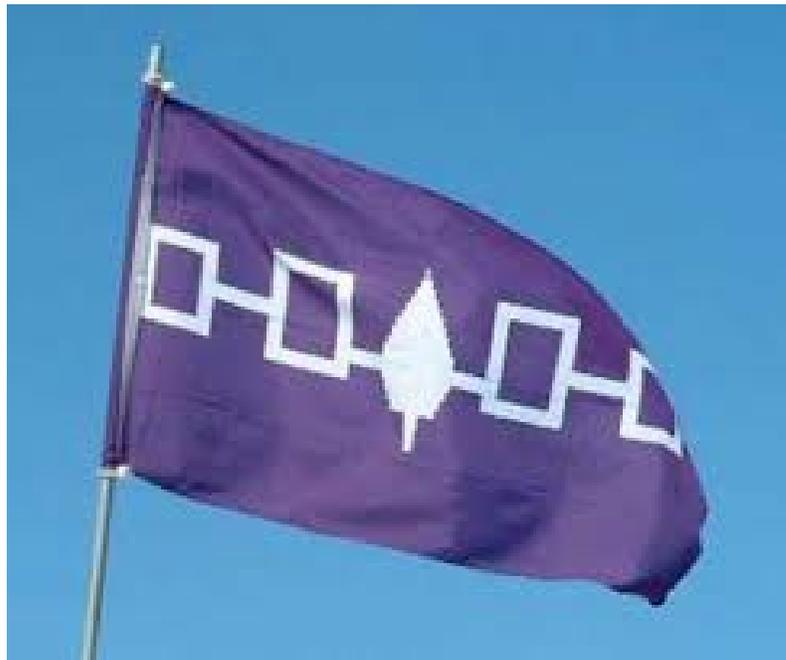
Key Vocabulary/ Academic Language: Haudenosaunee, artifact, culture, exhibit, wampum, corn husk doll, eagle, tree of peace, gustoweh, bead work, longhouse, clan, 5 arrows, nation, and stone canoe

Procedure:

- Students will board busses to go on a field to a local Haudenosaunee museum
- Students will break into small groups and travel with a tour guide throughout the museum to the different areas within the museum (i.e. Haudenosaunee food, clothing,

- clan gustowehs, clan denominations, a replica longhouse, audio of traditional oral stories, wampum belts etc.)
- The last area that students will visit with the tour guide is outside to play a traditional Haudenosaunee game (i.e. lacrosse or snow snake)
 - Upon arrival back to the school from the field trip, students will complete a quick worksheet asking them to recall information from the Haudenosaunee museum and create a venn diagram comparing and contrasting their own museum to that of the real museum.
 - Once all students have completed this wrap-up worksheet, they will gather on the carpet in a circle and share out their answers, favorite part of the field trip, and most memorable aspect of learning about the Haudenosaunee culture.

Haudenosaunee Culture



PBL Packet

Name: _____

Lesson 1**MAKING CONNECTIONS WITH ELA CLASS**

What are some symbols that you can recall from the gallery walk in ELA class today? _____

JACK DAWS INVESTIGATION (At each center, draw a picture of what is at the kit, something you notice and something you wonder about the items and its link with the Haudenosaunee)

Kit 1

Drawing	I notice... I wonder...
---------	--------------------------------

Kit 2

Drawing	I notice... I wonder...
---------	--------------------------------

Kit 3

Drawing	I notice... I wonder...
---------	--------------------------------

Kit 4

Drawing	I notice... I wonder...
---------	--------------------------------

Kit 5

Drawing	I notice... I wonder...
---------	--------------------------------

Lesson 2**MAKING CONNECTIONS WITH ELA CLASS**

Directions: Using your close reading strategies taught in ELA class today, circle any unknown vocabulary words that you do not know in the following driving question for this unit.

“What artifacts would we choose to display as museum curators designing an exhibit about Haudenosaunee Culture in New York State?”

Record 4 unknown vocabulary words/phrases below and research the definition of each using either a dictionary or research on the internet.

1. _____ - _____

2. _____ - _____

3. _____ - _____

4. _____ - _____

Lesson 3

Artifact

Discuss with the teacher and classmates what the word artifact means. You can use your definitions from last class as a resource to look back at.

Can you think of any specific artifacts discussed in the Thanksgiving Address in ELA class today that would represent the Haudenosaunee? (List any that you can think of)

Book Walk

Around the room there are many books that display the Haudenosaunee culture. Please complete a book walk by looking in the books and finding different artifacts that could be used to represent the Haudenosaunee in our museum. List a minimum of at least 10 artifacts that you could possibly re-create to display the Haudenosaunee.

<hr/>	<hr/>

Lesson 4

Museum Curator

During today's lesson, we will explore the meaning of a museum curator. We will be watching a video clip about museum curators. Throughout the video there will be times when the video is paused and you can jot down notes about what a museum curator is and the roles that a curator must fulfil for their job. Below is a small text box to record your thoughts throughout the clip.

Notes during the video Clip

Lesson 5**Exhibit**

Today, you will rotate through 3 center stations. At each station, there is a picture of an exhibit from around the world. Please answer the following questions about each station.
**Remember to use proper sentence structure when completing your answers to these questions and rephrase the question in your answer like we have been practicing in class.

Station 1
What is the title of this exhibit?
What is the theme that is displayed in this exhibit?
Identify 3 important facts that are explained in this exhibit. 1. _____ 2. _____ 3. _____
What about this exhibit grabs the attention of visitors at the museum?

Station 2
What is the title of this exhibit?
What is the theme that is displayed in this exhibit?
Identify 3 important facts that are explained in this exhibit. 1. _____ 2. _____ 3. _____
What about this exhibit grabs the attention of visitors at the museum?

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Station 3

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What is the title of this exhibit?

What is the theme that is displayed in this exhibit?

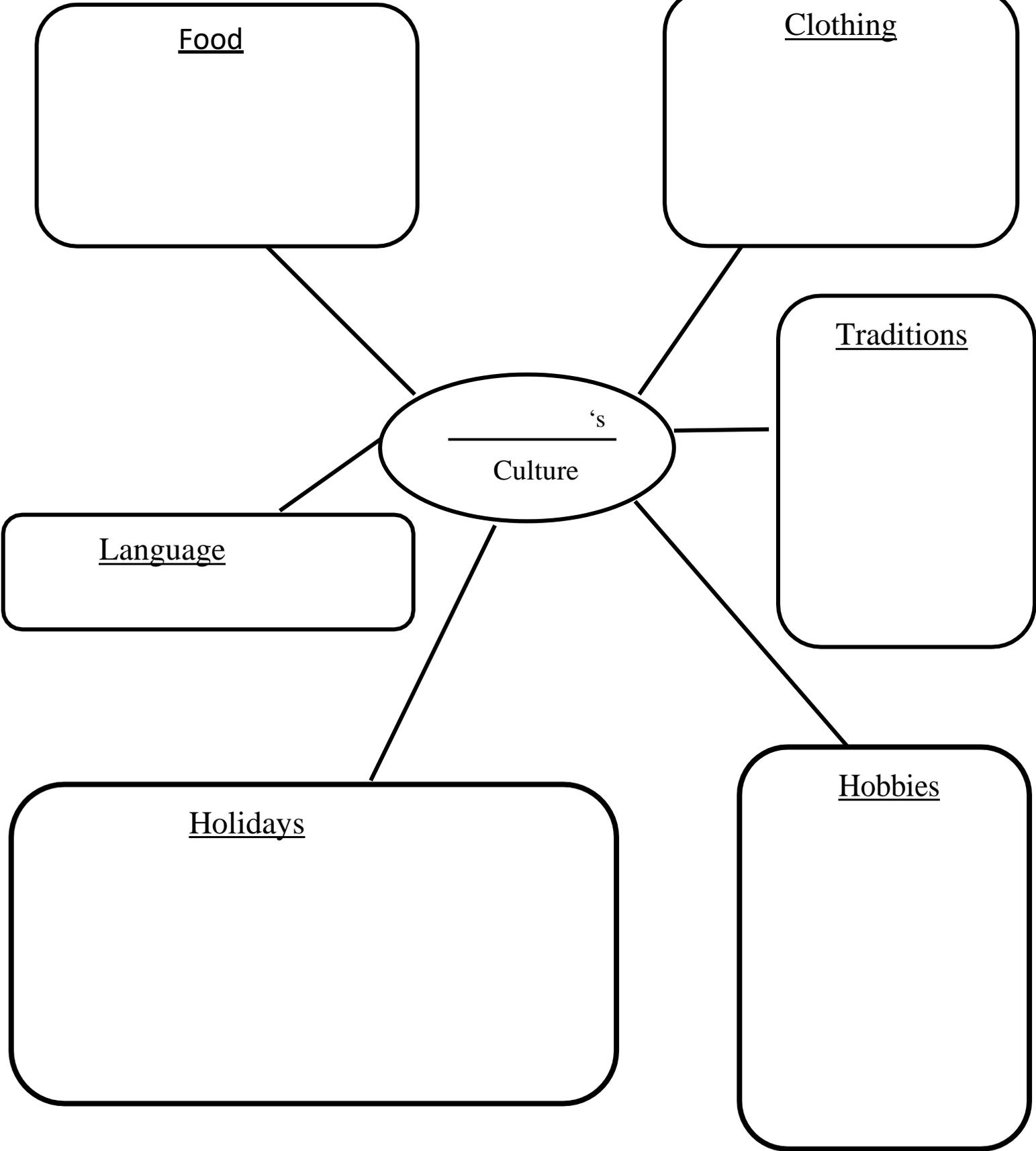
Identify 3 important facts that are explained in this exhibit.

1. _____
2. _____
3. _____

What about this exhibit grabs the attention of visitors at the museum?

Lesson 6

Culture



Exit Tickets

Lesson 1- Identify as many symbols and artifacts that connect with the Haudenosaunee Culture.

Lesson 2- Add student artifact ideas linked to the Haudenosaunee culture to the classroom anchor as possible project topics.

Lesson 3- Add new student artifacts from the book walk to the anchor chart

Lesson 4- What is an artifact? Name at least 2 artifacts that can be used to display the Haudenosaunee. What is a Museum curator? Identify some of the roles of a museum curator.

Lesson 5- What was your favorite exhibit from today's investigations? What about this exhibit made it most appealing to you?

Lesson 6-

Artifact

The beliefs, customs, and way of life of a group for a particular group of people.

Museum Curator

An object or tool created by humans representing an item of culture or history.

Exhibit

A manager of a cultural institution.

Culture

An object on display at a gallery or museum.

Chapter 5- Discussion

The prior chapter specifically detailed the three-week curriculum on the Haudenosaunee culture within New York State. This curriculum project was developed by immersing myself within both the New York State Common Core Learning Standards, New York State Modules, and state mandates by the Individuals with Disabilities Education Improvement Act (IDEA) for special education (CCLS, 2015; NYSED, 2011; IDEA, 2004). In this curriculum, there is a strong correlation between the instruction that students are receiving in the general education setting and the supplemental learning this project targets within the resource room setting. This cross-curricular approach allows SWD to make deeper connections with what they are learning rather than learning topics in isolation. As a pre-service special education teacher, I noticed that there are not specific instructional approaches used consistently by special educators but rather a variety of different strategies used among teachers. This makes it difficult for our SWD as they transition between grade levels. In trying many different approaches myself, I saw a necessity for a consistent curriculum design that targets the needs of all special education students at many different levels. Research led to the Project-Based Learning (PBL) approach. The following sections outline the significance, limitations and future implications of this curriculum.

Significance

This curriculum project directly aligns with prior research conducted on PBL as well as the initial project design in previous chapters. The curriculum focuses on the key components of

PBL as outlined by Hovey and Ferguson (2014). The first key component in creating a PBL curriculum is having a specific research question. The research question that students investigate throughout this curriculum is, “What artifacts would we choose to display as museum curators designing an exhibit about Haudenosaunee Culture in New York State?” The next key component of PBL, as researched in the previous methods chapter, is investigating real-life problems. In this curriculum, students are doing just that by putting themselves in the role of a museum curator in creating a new museum to display the Haudenosaunee culture. Collaboration with others is the following component that a PBL curriculum must incorporate. Within this curriculum, students have many opportunities to collaborate with others on their design projects and work together in order to create a successful museum display. Finally, the culminating component of a PBL curriculum is to demonstrate the final product with others. In this curriculum project, students engage in conversations and display their final artifact exhibits with the larger community by inviting family and community members to explore their museum. In doing this, students have a chance to show others exactly what they have created in order to display accurately the Haudenosaunee and take pride in all of their hard work.

The design of this curriculum project significantly influences students understanding of the Haudenosaunee culture to a higher level of understanding. In playing the role of curator, students become engaged and motivated to learn more about the culture. In addition, the special education teacher can target specific Individualized Education Plan (IEP) goals within the project

without students even realizing it. Such IEP goals include reading, writing, and socialization goals.

Limitations

In developing this PBL curriculum, there are limitations in this particular curriculum as well as limitations within the field of research in relation to PBL. Limitations within this particular curriculum include a lack of specific IEP goals linked to specific student needs. This curriculum is broad in nature so that any special education teacher can use it accordingly. Specific student needs were unknown when designing it. Therefore, special educators that will use this curriculum may need to adapt the reading, writing, and socialization portions to match student IEP goals. Another limitation within this curriculum is that its intention is only for use in classrooms across New York State in its current format. The curriculum was specifically designed to correlate with New York State Common Core Standards as well as the Engage New York Grade 4 ELA Module 1A-Unit1: Haudenosaunee: Consensus Building in Community (CCLS, 2015; NYSED, 2011). Although in its current format, the curriculum can only be used across classrooms in New York State, it could easily be adapted to meet the needs within other states as well. Special educators in other areas across the United States could modify this curriculum in order to revolve around other Native American groups such as the Navajo or Sioux that are located in their particular communities. In addition, the larger concept of having students pose as museum curators creating artifacts in order to display any culture or historical event,

could be implemented in classrooms across all seven continents. For example, students in Egypt could investigate the native cultures within the area such as the Nubians.

Beyond this curriculum, limitations exist within the field of research around PBL. There is a breadth of research on the positive effects of PBL in many general education classrooms across many grade levels. However, additional research is needed on its effects within special education populations around the world. Many of the case studies on PBL indicate the positive aspects on special education students within the general education setting (inclusion) but do not further investigate its use within special classes such as the resource room setting, 12:1:1 classrooms or even behavior classrooms such as a 6:1:1 setting. During this curriculum project, an awareness of the need for additional research around PBL with special education students has arisen. It is my hope that, in doing this curriculum research project, additional studies will ensue in order to further investigate the positive effects of PBL with special education populations.

Future Investigations

Given another opportunity to continue this thesis project, additional materials, resources and scaffolds could enhance this curriculum for teachers and students. In order to further benefit this curriculum, pages of teacher resources could be added. One resource that would be beneficial for teachers would be to include a page of various books, articles and electronic pieces that teachers could reference about the Haudenosaunee culture. If the teachers were not familiar themselves with the culture, a wide variety of references for them to personally research would

be valuable. The teachers could also use this list of resources in order to scaffold student-reading levels within the resource room. For example, if one student is reading at a second grade level as a fourth grader, having a list of books at that student's reading level would allow the special education teacher to utilize ability level texts with the student. Another resource component that could be added is the lower grade level standards that are addressed within this curriculum. Many times when working with SWD, the standard skills that they are working toward are below grade level. Standards from lower grade levels second and third grade, for example, would be a good tool to include in this curriculum so that the special education teacher could scaffold previous grade level skills into the current fourth grade curriculum. This in turn would help the special educator to close the gaps that these students have with grade level peers. Secondly, this research project could include specific examples of student IEP goals that could be addressed within this curriculum. Although this curriculum lends itself well to a multitude of reading, writing and socialization goals, providing special educators with sample IEP goals that could be specifically addressed with this curriculum would enhance the curriculum project even more.

The potential of this curriculum research could be expanded to professional development opportunities as well. PBL is a growing instructional strategy focus for many districts. This curriculum can be used as a demonstration piece for others to use in their fourth grade classrooms or to have as a model for creating their own. In addition to the professional development opportunities of this curriculum within school districts, it could also be offered to

pre-service teachers through the Curriculum and Instruction program at SUNY Fredonia in New York State. Students at the college as well as researchers will have access to this curriculum through the archives files on master's thesis and capstone curriculum projects.

Conclusions

The intention of this curriculum project was to provide fourth grade special education teachers with an evidence based strategy, Project-Based Learning, that can be used with students in the resource room setting. Despite the fact there were limitations with specific students' IEP needs, the culture investigated, and plethora of teacher resources, this research project was successful in providing fourth grade special educators across New York State with an effective teaching strategy. In reading this curriculum, teachers across the state can implement the lessons provided in order to give students a deeper understanding of the Haudenosaunee culture. Furthermore, this curriculum can be used as a guide for teachers in creating additional Project-Based Learning experiences for students across various content areas and grade levels.

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