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Expeditionary Learning Curriculum for the Seventh Grade Classroom

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EXPEDITIONARY LEARNING CURRICULUM
FOR THE
SEVENTH GRADE CLASSROOM

BY
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A capstone submitted in partial fulfillment of the requirements for the degree of Master
of Arts in Teaching

Hamline University
Saint Paul, Minnesota

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To all of my colleagues and students over the years who have who helped me to reflect, process and grow as a teacher. To my friends who have supported and encouraged me through the many transitions in my life. To my Capstone Committee whose guidance has helped me to navigate this process and continually strive to improve my work. Lastly, to my family who has supported me in innumerable ways, I could never have done it without you.

"I regard it as the foremost task of education to insure the survival of these qualities: an enterprising curiosity, an undefeatable spirit, tenacity in pursuit, readiness for sensible self denial, and above all, compassion."

-Kurt Hahn

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CHAPTER ONE

Introduction

I am a middle school and high school English teacher. I teach 7th, 9th and 10th grade in a 6-12 secondary magnet school. I have worked in education for many years, in many different settings. My current school is an Expeditionary Learning school. What does that mean? That is exactly what I thought when I first started at the school, and has become my goal of this capstone. *How are the components of Expeditionary Learning used to design an interdisciplinary, project-based expedition at a middle school grade level?* To understand Expeditionary Learning, and my role in writing curriculum for an expedition, we need to go back and look at how I ended up at this unique school in the first place.

My Journey into Education

My foray into the world of education came through unlikely doors: Video Production and Theater. I had a good education. I went to a good school and got good grades and was accepted to a good college. I suppose my teachers were good, but honestly I wasn't particularly impressed by the passion of any of my teachers. I often have trouble remembering who my teachers were, so I wasn't exactly inspired to go into teaching. I wanted to be on the stage. I had started performing at a young age and was in love with it. My greatest teacher was the director of the children's theater. Now SHE had passion. She was brash, funny, strict and loving. I wanted to be just like her. So I

started college as a music and theater major.

After a year, I decided that a career in performance wasn't exactly practical, so I switched to Communications-Radio, TV and Film. I wanted to be a documentarian. I am a social creature and I wanted a career that had something to do with talking to people. After completing my coursework in film, I graduated and had no clue what to do next. I moved to the Twin Cities and attempted to find a job, any job. I soon found myself interviewing at a junior high for a paraprofessional position assisting teachers in video and theater. What could be more perfect?

I loved it. I was surprised to find that I loved teaching junior high students. People often say such bad things about that age, and I remember how miserable I was myself. Theater was the only way that I had survived my middle school years. Theater was a safe place where I could escape. I got to try on different personalities and work with different kids. It was a place that nurtured me and allowed me to flourish. It was great to be on the other side and watch students become immersed in the process of creation and performance. I worked with students to write, storyboard, shoot and edit. Students worked together to create a product that they could showcase to friends, family and the community. I was hooked and decided to go back to school to become a teacher. This is what I wanted to do. I decided to get my license in Secondary Communication and Literature. I wanted the opportunity to teach video and/or theater and thought that this would make me marketable.

One of the first assignments we had in our education program was to write a letter to a teacher who had inspired us when we were in school. I was stumped. I couldn't think of a teacher in school who had really inspired me. My mind always went back to

the theater director I had, she wasn't technically a teacher, but she had taught me so much. I asked my professor if I could write my letter to her instead. Of course, she said yes. The assignment wasn't about technicalities, it was about finding that spark, that inspiration, and that was Teddy. It was a wonderful assignment. It made me reflect on all of the things that I had learned through theater. I learned about performance, sure, but also I learned about myself. I gained confidence that has helped me in so many different ways. It taught me about responsibility, collaboration and integrity. All of these things have made me a better student, teacher and person. These were the things that I wanted to bring to my future students. I wanted to be that teacher that inspired students. It wasn't just about teaching content; it was about teaching character.

My first job was at a very small charter school. There was one teacher for every subject and most of us were young, new, female teachers. When I was hired, the director said, I don't care what you teach. I just want the students to come to school and learn something. This was a shock to me. I soon discovered that this school was not a traditional school and that many of the issues that I would be facing were ones that I was not prepared for. The school was small, only about 100 students enrolled, and only about 40 students actually showed up to school each day and many of them just for lunch. 99% of the students were living in poverty and many had a basic distrust or disinterest in public education. I remember talking with my fellow teachers that first week about the unique challenges we faced and how we were going to make our classes engaging enough to make students want to come to school each day.

This was my first introduction to the idea of cross-curricular classes and project-based learning. Through discussion and a mutual need for support, the teachers, with

support from the director, decided to try co-teaching classes. It was a natural fit for my background. Theater and video are cross-curricular project based subjects. They focused on a clear end product that used multiple skills and resources to produce. The school already had a focus on documentary film and photography, so I jumped right in helping students to try and tell their stories through video and photo essays. I also worked with the social studies teacher to explore hate and how it manifests itself in our language and our culture. I worked with the science teacher to create guidebooks about nature in English, Spanish and Ojibwe. I worked with the math teacher to create scrapbook pages and memoirs. It was a time of exploration and collaboration and I took it all for granted. Since we were at such a tiny school, we were not looked at very closely. I didn't have objectives, learning targets or state standards posted. I never submitted a lesson plan. I never had a formal observation. I enjoyed my time there, but a part of me was aware that what I was doing was not grounded in good pedagogy. I had the best of intentions, but I still had so much to learn.

I then took a new job, also at a charter school, but this was larger and had more structure. I had a mentor, formal evaluations, PLC's, and clear expectations. I learned about appropriate assessments, posting learning objectives, instructional models and so much more. I hunkered down that year and got to work. I submitted lesson plans every week and was challenged by my principal on assignments and assessments. I learned a lot, but something was missing. I started talking with teachers about trying more cross-curricular project based ideas. I found that many teachers felt the way that I did. I lobbied to teach a drama class and was allowed to team teach a project based class with the science teacher.

We were met with a lot of skepticism. The curriculum director loved the idea, but our instructional leader wasn't buying it. He was constantly looking over our shoulder and questioning our activities, goals and standards. He was focused on test scores, and didn't see the value in interdisciplinary teaching. I loved the class, but life under the microscope was proving to be too stressful. We were constantly trying to defend what we were doing, but eventually we were disbanded and I was pulled out to do a reading class. I was disappointed and frustrated. I knew there was something about being immersed in a project, something about learning by doing. Theater and film had taught me this. Working with other teachers at my previous job had wet my appetite for teaching this way. I just needed to find a place that would support these ideas, some place that embraced project based learning. Enter my new school.

I applied for a reading job at a small secondary school in a large urban district. I didn't know much about the school except what they briefly told me at the interview. They were in a time of transition and had recently become an Expeditionary Learning School. I wasn't exactly sure what this meant. Basically it was a project based learning model that placed an emphasis on building relationships with students. So with little to go on, but a feeling, I accepted the position.

My first year was chaotic. The school had just relocated and many things were up in the air. We had two principals come and go and communication within the staff was spotty and disconnected. I learned some things here and there about what it meant to be an Expeditionary Learning School, but still felt largely ignorant to what the mission of the school was. It wasn't until I attended a conference on Expeditionary Learning that I truly understood what the school was striving to do. The conference centered around

interdisciplinary curriculum design with a focus on community engagement. They showcased projects from different schools, and gave us the opportunity to meet teachers from other Expeditionary Learning Schools. It was everything that I wanted. I felt so inspired after leaving the conference. I just needed to learn more about Expeditionary Learning and how to actually use what I was learning in the classroom. That is the goal of this capstone. *How are the components of Expeditionary Learning used to design an interdisciplinary project-based expedition at a middle school grade level?*

Summary

Chapter one looked at how my personal and professional experiences have influenced my educational philosophies and ultimately led me to a school that seemed to embrace my natural inclinations. I was introduced to Expeditionary Learning, now I need to explore what that is, and how it can help me to create curriculum that meets the needs of students.

Chapter two will focus on defining Expeditionary Learning and explaining the rationale behind the educational philosophy. It will examine the different components of an Expedition and how they seek to engage students in their own learning. Chapter three will outline the methods involved in the creation of an Expedition. Chapter four will outline the implementation of the expedition and review what revisions are needed. Chapter five will reflect on how I see using this model in the future and how other schools can take bits and pieces of the philosophy and incorporate it into their own classrooms.

CHAPTER TWO

Literature Review

Introduction

My educational journey has been an interesting one, filled with many ups and downs that have ultimately led me to a unique school with a unique school design, Expeditionary Learning. This journey has led me to the question: *How are the components of Expeditionary Learning used to design an interdisciplinary project based expedition at a middle school grade level?* As I began to learn more about this educational model, the more I saw that many of the components were not revolutionary, but were in fact steeped in modern and traditional educational pedagogy. Chapter two will be literature review that includes a look at the history of Expeditionary Learning, the foundations of the model and its connections to project based learning and other educational practices. It will also examine some of the key components of an expedition.

History of Expeditionary Learning

Expeditionary Learning as a school design is fairly recent, opening their first school in 1992, as a part of the New American Schools Development Corporation's initiative to try new and innovative school structures and curriculum. But Expeditionary Learning has roots that trace back to WWII and before (Cousins, 2000).

Kurt Hahn is credited with being the father of Expeditionary Learning, and many of the principles can be directly related to his ideas and practices (Cousins, 1998). In 1920, Hahn helped create the Salem School, which built on the ideas of Plato's Republic. Hahn created the Seven Rules of Salem. After several years of running the school, Hahn wrote the Seven Laws of Salem in 1930 to describe his educational philosophy. These

laws were not primarily academically focused, but more concerned with the well-being and development of a student's character. They included ideas like self-reflection, imagination, triumph and defeat. These laws would become the basis for Expeditionary Learning's Design Principles (Burke, 2007).

Joshua Miner, a U.S. teacher, traveled to Europe to teach with Hahn in the 1950s (Cousins, 2000). Miner then returned home and helped start Outward Bound USA, based upon the principles of hands-on learning and outdoor adventure that he had learned from Hahn and his teaching philosophies (Miner & Boldt, 2002). Outward Bound was mainly a wilderness program that used adventure to teach character to students and adults outside of the classroom setting. Outward Bound has grown tremendously and now has courses for adults and children of all ages, in many areas across the country. In 1987, Outward Bound partnered with Harvard to form closer relationships with individual schools. This ultimately led to the formation of Expeditionary Learning schools. They started with 11 schools in 1992 and are now up to over 180 schools in the nation (Cousins, 2000).

Expeditionary Learning uses many of the basic principles of Outward Bound to create schools focused on high achievement and character development. "Expeditionary Learning schools (ELS) incorporate the methods of wilderness instruction into a complex educational design" (Spangler, 2008, p.46). The educational design includes an interactive, hands-on adventure based pedagogy that hopes to educate the mind and the heart. Character development is central to the philosophy.

Expeditionary Learning has created a set of core Design Principles that guides their academic and character curriculum with a structure based loosely upon Hahn's Seven Rules of Salem. These principles include:

- The primacy of self- discovery
- The having of wonderful ideas
- The responsibility for learning
- Empathy and
- Success and failure
- Collaboration and competition
- Diversity and inclusion
- The natural world
- Solitude and reflection
- Service and compassion (Cousins, 1998).

These principles have become an integral part of our school's mission. We utilize these in our classrooms and in our advisory program, which we call "crew". The first three principles are particularly important for classroom instruction and curriculum design. They have helped me to focus on what and how students should be learning. They remind us that the true purpose of education should be student learning, not test scores. They act as a daily check in to remind students and teachers the point of education, and why we are doing what we do. The goal is to teach the whole student, and not just focus on academic outcomes. Character is a key part of the Expeditionary Learning philosophy.

Expeditionary Learning traces its own background directly to Hahn and his work, as well as the history of Outward Bound, but many of the ideas can be strongly linked to other educational methods and styles such as experiential learning, project-based or problem-based learning, and interdisciplinary learning.

Educational Foundations of Expeditionary Learning

Expeditionary Learning as a curriculum design can trace its pedagogy to many well-known and renowned educational philosophies. Many of the ideas that EL uses are best practices found in many foundational education philosophies. This section will highlight some of the most important, including experiential or active learning, interdisciplinary instruction and project-based learning.

Experiential learning. Much like Expeditionary Learning, experiential learning can also trace its roots to the early 1900's, by way of John Dewey. Dewey never used the term experiential learning, but through time his educational philosophies have become the backbone for this style of teaching and learning. Dewey believed that school should not be separate from the community, but should be a place where students can learn from and engage with the world (Bickman, 2003). Dewey's thoughts embrace many of the same fundamental principles of Expeditionary Learning. Students need to be actively engaged, not just in what they are learning, but also in the community and the world around them. Students enjoy coming to school when they see that they work; that what they are engaged in deals with real life issues and problems (Wurdinger & Carlson, 2010).

Much like experiential learning, Expeditionary Learning emphasizes a connection to the community through experts, fieldwork and service learning. David Kolb, an American educational theorist, is a more recent supporter and practitioner of experiential learning. He states, "Learning, the creation of knowledge and meaning, occurs through the active extension and grounding of ideas and experiences in the external world and through internal reflection about the attributes of these experiences and ideas" (Kolb,

1984, p.52). Learning should not be passive. Active learning is about students not just being receptors of knowledge, but creators of it. Students are actively involved through discussion, hands on projects and work outside the classroom (Wurbinger & Carlson, 2010).

Wurbinger and Carlson break down experiential learning into five different approaches: problem-based learning, inquiry-based learning, project-based learning, service learning and place-based learning. These five different approaches are guided by many of the same principles and strategies used in Expeditionary Learning. Students are called upon to solve real world problems through active engagement in their communities with a focus on service. Kolb outlines in his book, *Experiential Learning: Experience as the Source for Learning and Development*, how experiential learning has a firm grounding in researched pedagogy and relates how the structure of this style of learning not only leads to academic learning, but character development as well (Kolb, 1984). Experiential learning and Expeditionary Learning focus on “whole” child development, the heart and the mind. This connection between the learning and the learner is at the heart of the Expeditionary Learning philosophy that strives to create students that are judged by the quality of their work *and* the quality of their character. (*Our Approach*, 2016)

Project-based learning. Hands on and interdisciplinary projects are a large part of Expeditionary Learning. These projects allow students to explore real-world problems and challenges and create high quality products (*EL Education Core Practices*, 2016). Students often ask teachers why they are learning something; they have a hard time understanding how their studies fit in with the “real world.” Expeditionary Learning

focuses on connecting students with the community and actively engaging them with the “real world”. Project based learning has been known to increase engagement as well as allow for deeper learning (Prince & Felder, 2007). Project based learning encourages curiosity, critical thinking and cooperative learning. Students work together creating solutions to real world problems (Krajcik & Blumenfeld, 2006). When designing projects, teachers designing curriculum seek to find issues or problems that are relevant and immediate for students.

Expeditionary Learning encourages students and teachers to create projects that are modeled off of real world formats and are delivered to authentic audiences (EL Education Core Practices, 2016). In addition to creating projects that are modeled off of real world models, it is important that these products have an authentic audience that further allows a connection with the community. “Student products often meet an authentic need and have an audience and purpose beyond families or the classroom teacher. Students regularly make presentations of their work and their learning to school and community stakeholders with authentic external audiences” (EL Education Core Practices, 2016, p.25). Projects can be created by looking to the community and identifying problems that can be creatively solved by students. These students then present findings to the people in the community charged with working on these issues. These projects encourage an inquiry-based structure where students use the end product, or project, as the vehicle for answering a difficult question or finding a solution to real world problems.

These various educational philosophies have some distinct components, but there is also a lot of overlap that often builds upon each other's ideas. Most of them are

grounded in best practices and can be utilized in any classroom. But how are these particular philosophies used in an Expeditionary Learning classroom? The next section will explore the specific components of an Expeditionary Learning classroom and how these components work together to create interdisciplinary units of study.

Interdisciplinary instruction. Another method of instruction that many teachers are looking to in order to increase engagement and motivation in their students is interdisciplinary or cross-curricular instruction. “The renewed trend in the schools toward interdisciplinary will help students better integrate strategies from their studies into the larger world” (Jacobs, 1989, p. 6). Expeditionary Learning strives to have students connect what they are learning in school with real life issues and problems. Like Jacobs, Expeditionary Learning believes that students will be more engaged if their learning is connected through a theme, issue or problem, and that this idea is examined in multiple classes or subject areas (Jacobs, 1989).

If Expeditionary Learning is focused on defining and solving issues in our communities, the only way to do that is through an interdisciplinary approach. This approach is not without its pitfalls though. Jacobs (1989) outlines the two major problems most teachers encounter when they try and create interdisciplinary units: the potpourri problem, or the polarity problem. The potpourri problems centers on the idea that practitioners do not have a clear scope or sequence for the unit, and they simply pull a little bit from each discipline without a clear unifying structure. The Polarity problem refers to one teacher pulling the unit towards their specific discipline. Again, the issue is that the knowledge from the different disciplines is not interconnected. The other disciplines simply support the main discipline.

Interdisciplinary instruction often requires more planning than traditional curriculum and more collaboration within the staff. James A. Beane (1997) stresses the importance of bringing young people into the planning of curriculum. He believes that curriculum integration is a collaborative effort between educators and their students. Expeditionary Learning also believes that curriculum planning should incorporate input from students and teachers, as well as pulling in important experts from the community (*Expeditionary Learning Outward Bound*, 1998). Interdisciplinary curriculum planning allows students to explore all aspects of an issue or theme, from all sides without having to break things down based solely on the constraints of subject disciplines. Teachers create integrated curriculum that helps students to pull knowledge and information from various sources to find possible solutions to significant problems and issues in their communities (Beane, 1997). Expeditionary Learning provides in depth professional development to help teachers avoid these common challenges.

Expeditionary Learning hosts a variety of different professional development opportunities throughout the year. Many of these workshops focus on the fundamentals of curriculum design where they help guide teacher teams as they develop expeditions. In addition to these workshops, there is also a host of variety of model expeditions that are available to any teachers in the Expeditionary Learning Schools network (*Resources*, 2016).

Interdisciplinary instruction aligns with a lot of the basic principles of experiential or active learning. For active learning to take place, often the student must engage many different disciplines at the same time. “The adolescent begins to realize that in real life we encounter problems and situations, gather data from all of our resources, and generate

solutions. The fragmented school day does not reflect this reality” (Beane, 1997, p. 1). In order for curriculum to truly represent what students will experience in the professional world, the learning during the school day needs to be connected. Experiential learning often requires an interdisciplinary approach. One of the main reasons why teachers often don’t wish to engage in this type of instruction approach is because they are concerned with aligning content and skills to state and national standards. Integrated curriculum is much harder to plan and requires a lot of discussion and preparation.

Components of the Expeditionary Learning Classroom

Expeditionary Learning has designed a framework for their curriculum that uses many of the different strategies previously discussed and repackaged in a way to increase student engagement. The different components are used in most Expeditionary Learning schools, but Expeditionary Learning acknowledges that not all components are used at all times. There is a lot of room for teacher experience and interests, as well as for feedback from students, parents and the community. This section will highlight some of the most important aspects of the Expeditionary Learning curriculum design framework including expeditions, assessments, case studies, fieldwork, and classroom protocols.

Expeditions. Expeditionary Learning aims to be an academically rigorous program that uses project based learning expeditions to engage students in deeper critical thinking and problem solving. These “expeditions” are highly crafted curriculum units that seeks to engage students by using many different strategies for learning and instruction (Rugen and Hart, 1994). These expeditions also stress craftsmanship and an emphasis on high quality work that helps students to better prepare for college and life in the professional world (*EL Education Core Practices*, 2016).

Expeditionary Learning Schools have used their Design Principles to increase engagement and motivation in students across the country through guided “expeditions” that incorporate many disciplines and culminate in authentic projects and products that involve service and a connection to the community. Guiding questions are open-ended helping to give expeditions a unifying structure and are what links the many disciplines together (Rugen and Hart, 1994). Some expeditions focus on only humanities, while others incorporate science, math and the arts. Literacy is woven through the entire structure with a strong emphasis on writing and reflection (*EL Education Core Practices*, 2016).

Expeditionary Learning schools use “expeditions” as their main curriculum structure. Learning expeditions are in depth explorations of a large topic or theme that is connected to real world issues or problems. During an expedition, students are expected to engage in research projects that help students to critically think and problem solve (*EL Education Core Practices*, 2016). Literacy is a key component in all learning expeditions, and is expected to be stressed not only in the ELA classroom, but across all content areas. “Learning expeditions take multiple, powerful elements of the (Expeditionary Learning) model and join them together: guiding questions, kickoff experiences, case studies, projects, lessons, fieldwork, experts, service learning, and a culminating event featuring high-quality student work.”(*EL Education Core Practices*, 2016, p.17) Expeditions are multifaceted and when these parts come together through integrated curriculum it leads to more student engagement and deeper thinking.

Most expeditions have a large topic or theme they use to connect units, classes or subjects. This large topic should not be focused on one particular discipline and should

have an access point for all teachers and subjects to contribute to. Many schools have chosen topics or themes based off of local issues in the area or strong teacher passion. The theme or topic should be one that can be applied authentically to multiple disciplines in an integrated fashion. Much like integrated curriculum, expeditions should have a unified focus around a topic, not just a piecemeal attempt at interdisciplinary curriculum (Cousins, 1998). This is achieved through discussion and preparation by all of the teachers who will be involved in teaching the expedition. It is important that all teachers are given time for collaboration, so that they have a united vision for the success of the unit. In addition to online resources, EL provides schools with in depth and relevant professional development to aid in the creation and implementation of expeditions (*Resources*, 2016).

Most Expeditions begin with a compelling guiding question. Guiding questions are open-ended and lead to multiple perspectives and a variety of possible solutions. They can be returned to throughout the study and throughout life for discussion and as a source for debate (*EL Education Core Practices*, 2016). These questions are meant to inspire curiosity in students and help them connect different activities and projects back to the overarching theme or topic. These questions are to be written in student friendly language, so that they are memorable and relevant to the students.

Standards, learning targets, and assessments. One of the common questions teachers ask when doing interdisciplinary, experiential, and/or project-based curriculum is “How do I grade this?” With the inception of the new Common Core standards and a push towards learning targets and rubrics, assessments have become easier to align with curriculum and state or national standards (Pagliaro, 2013). One of the key ideas with

creating assessments for “expeditions” or other experiential methods of teaching is to make sure that assessments are authentic and are directly linked to what you want students to know. Expeditionary Learning schools use learning targets to guide instruction as well as inform how to create authentic assessments.

Common Core also places value on creating student centered learning targets. Learning targets should be written in easy to understand “I can...” statements. Many school districts have already broken the standards down into student centered learning targets. Learning targets can also be broken down into smaller supporting targets. The focus is on what the student is learning, not on what the teacher is teaching (Pagliaro, 2013).

Expeditionary Learning believes that assessment should be continuous, so that students continue to strive for high quality work. Students should be engaged in revision and reflection throughout an expedition (Berger, Rugen and Woodfin, 2014). Reflection is a key part of assessment and helps students to look critically at their own work and try to make it better. “When a student is asked to comment on work, talk about its positive and negative elements, explain the process that was chosen to complete the work, and evaluate the success or failure of the work, then the assessment itself becomes as meaningful as the original assignment” (Borowski and Thompson, 2001, p. 42).

Assessments should be used as another learning opportunity. One key way to do this is through the use of rubrics. Well written rubrics not only help teachers measure student achievement, they are a tool that students can use to monitor their own progress as they complete a large project (Montgomery, 2000). Rubrics can be used to introduce a project, check for understanding during a unit, as a structure for self -assessment and as a

way for teachers to communicate to students how they are progressing toward a learning target. Because of the importance of rubrics, and their many uses it is important for teachers to get continual feedback so they can adapt and revise rubrics as needed. Teachers should engage students in the creation and revision of rubrics by eliciting feedback from students whenever possible. As teachers strive for clear language and understandable ideas in their rubrics, they should look to students for input and feedback (Montgomery, 2000). This encourages ownership over the work and true pride in things learned.

Case Studies and fieldwork. Expeditionary learning uses case studies to help break down large subjects into smaller more relevant sub topics. “Case studies animate the major concepts of a discipline or broad topic through concrete-often local-studies of subtopics within the discipline. The case study helps students focus their research and become experts on a specific topic before they generalize their learning to broader concepts and content” (*EL Education Core Practices*, 2016, pg.20). The idea of case studies is one that is grounded in the social sciences, but can easily be adapted to the classroom setting. Case studies breakdown large, sometimes global problems, into smaller examples that can be easier for students to understand and break apart. Case studies offer a unique opportunity for teachers to aid students in finding a link between global issues and their local communities (Prince & Felder, 2007)

Fieldwork is an integral part of Expeditionary Learning schools, and encourages students to go out into their communities. Fieldwork differs from field trips, in that they have a clear academic focus that uses many of the structures of professionals working in

the field (Miech, 1996). Students are actively learning during fieldwork that often has an authentic product, or links directly to work that they are doing in the classroom.

Experts are a vital aspect of fieldwork, and work directly with students and teachers to help facilitate the learning during fieldwork (*EL Education Core Practices*, 2016). This use of community experts is another way for students to become more involved in the community outside the classroom. These experts can also help students to create and model products off of real life formats that the experts are using in their own professional communities.

My school often works with the state parks by engaging in fieldwork where students not only learn about native species, but are actually involved in cataloguing and collecting seeds for various plants. Students work side by side with state park personnel, including forest rangers that act as experts and help to expand on information learned in the classroom. Students also use field guides designed off of real world formats.

Classroom protocols and instructional practices. Expeditionary Learning has a set of protocols and instructional strategies that help to support learning and create a collaborative culture in the classroom. These protocols are used to help create a student-centered classroom. “Our classrooms are alive with discovery, inquiry, critical thinking, problem solving, and collaboration. Teachers talk less. Students talk (and think) more” (*Our Approach*, 2015).

Many of the protocols focus on the idea of accountable student talk. The teacher acts as a guide by using discussion protocols that encourage and support students’ exploration in an inquiry based approach. Students are encouraged to question, discuss and research topics on their own or with classmates, instead of having the teacher deliver

answers through direct instruction. Students are tasked with identifying what information that they need to gather in order to generate solutions to a given problem (Darling-Hammond, 2010). Inquiry based strategies are used to discuss problems so students can construct their own solutions.

Teachers use specific protocols to help guide students through the discovery process, encouraging them to take an active role in construction their own learning. Teachers ask questions and then use classroom protocols to help students find their own answers (Darling-Hammond, 2010). One common tool used in Expeditionary Learning classrooms is expert folders, where teacher collect a variety of resources for students to use and explore at the beginning of a unit. They have the opportunity to return to these resources throughout the unit for deeper study. Expeditionary Learning provides a comprehensive guide to classroom protocols that can be utilized in many different content areas. Protocols range from simple strategies, like turn and talk, to more involved protocols like conducting a Socratic Seminar (*Appendix: Protocols and Resources*, 2013)

Cooperative learning. Cooperative learning is an integral part of the Expeditionary Learning classroom where students not only work together to solve problems, but also to create a positive classroom culture. Cooperative learning has many benefits, including improving interpersonal relationships, self-esteem and communication skills. It also allows students opportunities for leadership and to develop an understanding of diverse perspectives (Johnson, D. W., & Johnson, R. T., 2010). An Expeditionary Learning classroom should not only be a place for students to learn about

academic subjects, but it is an environment that helps students to build strong and lasting character traits.

Cooperative learning has also been shown to promote higher achievement. Students work together to assist each other and learn to appreciate their peers and their individual contributions to a large and complex problem or project (Johnson, D. W., & Johnson, R. T., 2010). This also allows for students to experience achievement that they might not have been capable of individually. This approach allows for more support and peer recognition (Stearns, 1999).

There are many different components of Expeditionary Learning and it can seem overwhelming at first to try to make sense of how these components work and interact. The framework utilizes best practices and lays out how to create curriculum that is engaging for students and teachers. By using local resources, people and places, class work seems more relevant to students, as they are able to see how their work connects to their communities and the world outside of the classroom. Students are engaged in the classroom through classroom protocols that allow and encourage cooperative and social learning. This allows for students to be more active participants in their own learning.

Summary

This literature review looked at the history and educational foundations of Expeditionary Learning. This chapter also examined the different components of Expeditionary Learning and how they conceive of and design their curriculum, specifically an expedition. This exploration was vital in formulating an understanding of Expeditionary Learning and how this network seeks to engage students in learning and make them the center of the classroom.

To understand who Expeditionary Learning is now, it helps to understand the journey it took to be where it is now. As I write this, Expeditionary Learning has gone through another change. Expeditionary Learning has changed its' name in order to further themselves from Outward Bound while establishing themselves as an independent educational framework for schools across the nation. Expeditionary Learning has also formed a deeper connection with Common Core, and has been creating curriculum using the common core that is available for free to teachers all over the country.

This review was vital in helping to answer the question *How are the components of Expeditionary Learning used to design an interdisciplinary project based expedition at a middle school grade level?* Expeditionary Learning can be a confusing framework as it attempts to integrate various best practices and educational methodologies. This literature review has allowed me to connect many of Expeditionary Learning's ideas to the researched pedagogy that has proven to be successful in engaging students in relevant and interesting work. This integration of ideas helps teachers to use "best practices" in a way that allows all students to be successful.

The Expeditionary Learning created framework is one that can be difficult and time consuming for teachers to design. Expeditionary Learning has designed and packaged different techniques into specific components that teachers can utilize to design curriculum. These different components link back to the various educational philosophies, and give a clearer structure as to how teachers can use them in the classroom. Breaking down these components into various parts has allowed me to better understand what Expeditionary Learning is and how its' philosophy is used to design engaging curriculum that I can create for my own classroom.

Chapter Three will detail the setting that I work in, as well as, the specific grade level that I hope to design my unit for. The third chapter will go deeper into the process of creating an expedition by discussing how I will design an interdisciplinary unit using Expeditionary Learning components and protocols.

CHAPTER THREE

Methods

Introduction

The purpose of this capstone is to answer the question *How are the components of Expeditionary Learning used to design an interdisciplinary project based expedition at a middle school grade level?* Chapter two researched the history of EL and the different components of an expedition. It looked at the important educational foundations and showed how these philosophies are directly used in an expedition. It also outlined some of the key components of an expedition. Chapter three will outline the school setting including the district I work in as well as the school itself and the specific grade level the curriculum will be designed for. Following that I will outline how to create a specific learning expedition using Expeditionary Learning components, such as community connections, case studies, fieldwork, and cooperative learning groups.

School Setting and Participants

The school is an Expeditionary Learning school in an urban district. The district is one of the largest districts in the state with a total enrollment of over 37 thousand students in 58 different schools. There is a very diverse population in the district: 31% of students are Asian, 30% African American, 22% Caucasian, 13% Latino and 2% American Indian. This diverse population includes many immigrant groups, including a large Hmong population and a growing Karen population, with 34% being English Language Learners. 72% of the students are eligible for free and reduced lunch and 16% receive special education services. Although the district as a whole is very diverse, this is not always represented in individual schools.

Our school is the only Expeditionary Learning School in the district, but not the only magnet school. There are eleven secondary schools in the district, with many of these schools having specialized programs, ranging from aerospace to performing arts. There is one other Expeditionary Learning school in the city, but it is a small charter school, and not a part of our district. In addition our school is a magnet school, which means that it “pulls” students from all over the district. Citywide busing allows for any student who wishes to attend the school access to transportation. The school historically struggled with enrollment, but now boasts a waiting list for 6th and 7th grade. Students get in based on a lottery system, where siblings and staff have priority.

The school has a very unique and interesting history. It has gone through many profound changes in its 40-year life span. Originally started in 1971 by a group of concerned parents that were looking for an alternative education model, the school was designed to be a student centered K-12 school with multi-age classrooms, daily student choice in classes, and teachers who were “guides” not lecturers. The school went through drastic changes in the last 40 years, which included adopting the Expeditionary Learning framework, moving locations several times, dropping the elementary school to become a 6-12 secondary school, and changing its name.

The demographics of the school have also changed drastically in just the last 5 years. When I started at the school, the demographics largely reflected the demographics of the district as a whole, since then the population has changed. We are now 53% Caucasian, 16% Latino, 15% African American, 15% Asian. 20% of our student population receives special education services and 44% are eligible for free and reduced lunch.

The philosophy of the school has also changed as the demographics shifted and new teachers joined the staff. When I started in 2011, there were only 12 teachers for around 200 students. We now have 22 teachers with a student population of around 400. The school's philosophy is still focused on being "small by design" with an emphasis on student-centered learning. But as the school changes, so has the philosophy of "choice". When the school was in its infancy, students could choose their classes daily or weekly. The school now has a more traditional class schedule where the year is broken down into semester and yearlong classes. The daily schedule is an 8 over 2, where students are enrolled in 8 classes that they attend over 2 days. They have "A" and "B" days where, in addition to a daily advisory or "crew", they attend 4 classes each day.

When the school was first created and for many years after, they did not have a traditional grading system. The school had adopted a "narrative" grading system, which involved a holistic look at each student. Grades are based on specifically chosen goals by teacher *and* student. Teachers wrote "narratives" for each student instead of numeric or letter grades. This grading system changed when the school adopted Standards Based Grading at the same time that they became an Expeditionary Learning school. Standards Based Grading links grades directly to mastery of state or Common Core standards. Grades are communicated on a proficiency scale: Exemplary, Proficient, Developing and Novice. A grading matrix is then used to create final grades that conform to the traditional letter grade scale: A, B, C etc (Totushek, Ott and Littlefield, 2012).

Grade level teams generally design expeditions. The grade level team includes the core subjects of English, social studies, science and math. There are two sections/classes per grade of approximately 70 students. The 7th grade class that will be

the audience for this unit consists of 72 students split into two different sections. All students have the same teacher for English, social studies and science, but they have different teachers for math depending on their level. This grade level, at present, is the least diverse within the school, over 70% of the students are white and do not receive free or reduced lunch. The remaining 30% of the grade is a mix of Latino, African American and Asian students. Among our students, about 10% also receives ELL services. Over 20% of the students either have an IEP or 504 and are eligible to receive accommodations or modifications on assignments. One of my classes is co-taught with a special education teacher.

There is typically one expedition per grade level in the middle school classes. The 7th grade team meets weekly to design and adapt the expedition, create daily lesson plans, coordinate community involvement opportunities and explore student data. Our current team consists of four teachers: a social studies teacher, a math teacher, a science teacher and me, an English teacher. Currently, I am the most experienced teacher. All the other teachers have been teaching for less than 5 years, therefore, I have become the teacher lead for the expedition. Our team meets 2-3 times per week during a designated PLC, professional learning community, time. We try to focus on specific goals each meeting, varying from curriculum design to student behavior concerns. There are different strategies used to hold teachers accountable and encourage them to remain engaged, including recording meeting notes and specifically assigned tasks and responsibilities.

Methods

One common method used today to create units is Wiggins and McTighe's

“Understanding by Design” or backward design. In this method, the instructor starts at the end and works backward, by identifying what it is they want the student to know or has learned throughout the course of the unit while aligning those lessons with state standards. The ways we have assessed learning is by focusing on summative assessments. We then create lessons plans that incorporate formative assessment and scaffolding opportunities.(Wiggins & McTighe, 2005). Expeditionary learning uses this design while also incorporating specific Expeditionary Learning components such as case studies, community connections and authentic projects and audiences (*EL Education Core Practices*, 2016).

Unit Overview

The original idea for this unit came from our administrator who heard that there was a vacant lot located adjacent to the school. He used his connections to halt the sale of the lot until we could decide if and how we could use the lot. Next he then created a partnership with a local community organization to secure the funding to purchase the lot. He then handed the reins of the project over to the 7th grade team since our theme for the year was *Community*. Our guiding question for the year is “What makes a community thrive or suffer?” We decided that this will be the culminating unit of the year and will attempt to include all expedition components.

Vacant lot project. Using backward design, the 7th grade team decides on a project for the vacant lot. This unit will be an interdisciplinary unit that will assess standards from English, Social Studies, Science and Math. After deciding on an outline of the project, the 7th grade team will create a rubric that connected state standards to the project components. The team decides on state standards that best connect with the

project, as well as standards that assess higher-level thinking and student independence. Most of the content standards come from science and social studies, while English and math standards focus on skill development. Teachers will also design learning targets that translate state standards into student friendly “I can” statements, so students can track their own learning. After the standards and learning targets are decided upon, the team will formulate a rubric. The rubric will be used to introduce the project to students, as well as be used to assess students at the end of the project. .

Community connections. Community connections include several of the Expeditionary Learning components and ideas discussed in Chapter two, including the use of experts, fieldwork, case studies and authentic audiences. Community involvement is a large part of our school as well as Expeditionary Learning. All students are required to complete 150 hours of community service to graduate, so we hope to incorporate some service opportunities into the unit.

The 7th grade team will meet and discuss possible fieldwork opportunities and contact different experts that can come and work with students. We will also look at specific ways students can work with the local community to get feedback on their proposals for the vacant lot. Since the lot was purchased with two other partners, they will serve as our primary connection.

Fieldwork and experts. We will create different fieldwork opportunities where students will visit local gardens and/or parks that were once vacant lots. They will explore the areas to see how the gardens are set up and created. We will also bring community experts who can talk about how and why different gardens and parks were created. The amount of fieldwork will vary depending on resources available and time

allocated to off site learning.

Case Studies. Students will study various case studies from around the Midwest to inform them on possible proposals. They will use these case studies to inform them not just what to propose, but how to write and organize a coherent and cohesive proposal. Students will also look at how these different case studies have impacted the community and the environment.

We have also chosen specific local vacant lots that have been turned into gardens, or parks. We will work with experts and read articles that walk students through the creation of these spaces. We will also visit these sites during fieldwork. We will choose sites that students can use to model their vacant lot project off of, while also learning about the effect of vacant lot on communities around the country.

Classroom Structures and Protocols

During this unit, we will be using many of the classroom structures and protocols that are highlighted by Expeditionary Learning in their various professional development workshops and literature. Many of these structures and protocols will have been used earlier in the year, so that students and teachers will have some familiarity and practice with how to use these in the classroom.

Workshop 2.0. Many schools use a traditional workshop model to structure the delivery of instruction. EL has instituted Workshop 2.0, which redesigns the model with a more inquiry-based approach. The traditional workshop model has an ‘I do’ ‘We do’ ‘you do’ structure, meaning that teachers model for the whole class first, then students work with a small group, then do it on their own. In this model students are encouraged to grapple with information first before the teacher gives instruction. Students are often

given only a small amount of direct instruction at the beginning of a lesson. They must work through the lesson on their own, or with group. This allows students to increase their perseverance as well as use previously learned strategies on their own. Often there are posters or signage around the room to remind students of these previously learned strategies. (*Building A Culture Of Grappling*, 2016)

Workshop 2.0 helps teachers to almost pre-asses every lesson, by checking in with students as they grapple with the problem to see what common issues or misconceptions students have, and then “mop up” these issues at the end of the lesson. This pre-assessment also allows teachers to see what students already know, and thus not waste class time by teaching students previously learned information. Teachers can check in with groups and provide differentiated instruction for students or groups that need additional help. The hope is that through this style of daily instruction, students increase self-advocacy and perseverance. They are then less likely to quit when they encounter difficult problems, and they learn to use strategies they have been taught on their own. Most lessons will be taught in this format, although there will be some lessons that will require a more traditional workshop model.

Cooperative Learning Groups. Students will be working independently and cooperatively. Students will work together to create a final product that looks cohesive while also highlighting individual strengths. Many of the classroom protocols used in class are designed to facilitate cooperative learning. Teachers use various forms of data to create the different groups including grades, behavior, previous groupings and teacher input and experience. These groupings will remain constant throughout the course of the project, so a lot of time will need to be spent on forming the groups to make sure that

they are appropriate for the project.

Classroom Protocols. Expeditionary Learning uses many different classroom protocols to deliver instruction. Many of the protocols are inquiry based and cooperative. These protocols will vary based on the lesson and the class that they are being taught in. Teachers will work together to agree on a few protocols to use throughout the year, so that students become comfortable with the protocols and are skilled at using them without a lot of teacher guidance. Therefore most of the protocols used in this unit will be protocols previously learned, but new protocols may also be introduced as needed.

Summary

This will be the culminating project for the year, and will include the 4 core subject areas and will result in a project that will be showcased for the community. Much of the skills learned throughout the year will be utilized in this project, as students work more independently and the teacher takes on a more advisory role in the classroom. The four core teacher will meet weekly to adjust lessons and to check in on student progress. Toward the end of the project, classes will be blocked so that students will not have to stop working to change classes, but will remain in the media center to continue working on the project. Teacher will use a visible 'star chart' to help student to track their own progress on project completion.

Chapter two focused on the research behind my question *How are the components of Expeditionary Learning used to design an interdisciplinary project based expedition at a middle school grade level?* Through this study, I was able to learn more about the philosophy behind Expeditionary Learning, and now in Chapter three, I was able to focus more on how to design an expedition. In chapter four I will outline how the expedition I

created uses the different Expeditionary Learning components.

CHAPTER FOUR

Curriculum

Introduction

This chapter will detail the creation of curriculum designed to address the question *How are the components of Expeditionary Learning used to design an interdisciplinary project based expedition at a middle school grade level?* Having worked at an Expeditionary Learning school for the past few years, this will be the first time that I am creating my own curriculum using Expeditionary Learning. The last chapter outlined the specific components of an Expeditionary Learning unit, and this chapter will detail the specifics of the unit I am creating using those components. I will look at the vacant lot project that students will be creating and how we will use specific Expeditionary Learning components, classroom protocols and cooperative learning to explore different topics and create a final product to be showcased to the community.

Unit Overview

This unit will be an interdisciplinary project based unit. Students will be working in English, Science, Math and Social Studies classes on various components of the unit. The unit will take 8 weeks, allowing time at the end for students to have time to complete their projects so that they are of high quality and ready to present to the community at the opening of the farmer's market. The unit overview will include a project description, along with community connections, fieldworks and experts, and case studies. The project will assess several state standards from English, Science, Math and American Studies (See Appendix A). Those standards have been turned into student friendly learning

targets (See Appendix B). The project will be assessed through a rubric designed by the 7th grade team (See Appendix C).

Vacant lot project. Students will create a proposal for the development of a vacant lot that was recently purchased by the school in cooperation with the neighborhood community and the school adjacent to ours. This proposal will include a grant proposal, a diagram of the lot (before and after), a budget breakdown for any lot improvements or maintenance, plus community and environmental impact. This proposal will be displayed on a board to be presented at the opening of the neighborhood farmer's market. Students will be writing a grant that is modeled off of various community grants, specifically the Jeffers Foundation Grants, a local Minnesota based organization that promotes environmental education ("School Gardens Grant Opportunities: Jeffers Foundation", 2016). The grant will be broken down into six different sections:

- I. Organization Information and Background
- II. Proposal
- III. Visual Diagram/Map
- IV. Community Improvement/Benefit
- V. Environmental Impact
- VI. Budget

Student will complete section one and two in English, section three and six in Math, section four in Social Studies and section five in Science. Students will then work in English to edit, peer critique, revise and finalize their section into a final grant proposal.

Section one will detail our school, including demographics, mission statement and brief history. They will also look at the history of the vacant lot project so far, who

purchased the lot? When and why? Students will also look at letters written from each of the organizations involved and add details about the needs and wants of each partner.

Section two will include all of the descriptive details of each student's proposal. Students will be given different resources and case studies to use as models, but ultimately they will design their own proposal. They will describe in detail how the proposal will use the space and meet the needs of the different partners involved.

Section three will be designed in the math classroom. Students will spend time at the vacant lot to create scale diagrams that outline the different features that are currently in the lot including trees, bushes, fences and a retaining wall. Next students will create a scale diagram of their proposal taking into consideration all of the landmarks from the previous diagram. Both diagrams will include a scale and a key.

Section four will be explored in Social Studies. Students will brainstorm different community problems and look at how they can use the development of a vacant lot to address some of these issues. We will look at various case studies and explore how they used community spaces to have a positive impact on the surrounding community. Students will then apply this thinking to their unique vacant lot proposal and outline who their project will directly and indirectly affect the community.

Section five will be addressed in Science. Students will look at specific environmental impacts, positive and negative. Again, students will be given various resources and case studies to help them look at specific examples of environmental impact. They will then apply their thinking to their specific project proposal.

Section six will be completed in math class and will include all material costs for the redevelopment of their specific vacant lot proposal. Students will use excel to create their budgets.

Students will summarize the different sections of the grant for their presentation board. They will work in their cooperative groups to edit, summarize, design and present their information. They will create a tri-fold board that includes information from each of the group members. Students will focus on content and craftsmanship for their final presentation.

Community connections. For this unit we looked to the surrounding area for our community connections. As a team we identified several organizations that we could use as experts and as a possible audience for this expedition. We are going to work with various organizations, including WSCO (West Side Community Organization), Growing Westside, Youth Farm and Humboldt High School. These organizations will act as our primary experts for this project. They were involved early in the process of purchasing the vacant lot, and therefore will be involved with the design and maintenance of the lot.

Our school is connected to another secondary school. This school is much larger than ours with over 1200 students. They also have a more diverse students body and different educational philosophies. They have an environmental focus with a lot of classes that will be hoping to use the space, including Agriculture and Landscape Design.

WSCO is a community organization that is very interested in creating more community gardening spaces. They have been working with a small volunteer group, Growing Westside, which currently runs two other community gardens in the

neighborhood as well as organizing an extensive seed library. They have also previously partnered with Youth Farm, an agriculture based educational organization that teaches classes and helps to maintain small farms around the city.

The first way we hope to involve the partners is to have them inform the students about their ideas and needs with the vacant lot. Each partner has committed to creating a written needs assessment for the vacant lot. We will use this to inform and instruct the students. The students will have to address the needs of all the interested parties when creating their proposals. Secondly, these organizations will act as the audience for the final project.

The final proposals will also be presented to the surrounding community at the opening of the farmers market. These organizations, with input from the community at large, will also use the proposals from the students to help them decide how to ultimately use and maintain the vacant lot. This allows not only for community engagement, but also provides an authentic audience for the final project. Students will have the opportunity to present their ideas at the local farmer's market, so that they can discuss their ideas with the people who will be directly affected by the creation and design of the vacant lot.

Fieldwork and experts. The students will have a few different fieldwork opportunities. First of all, they will visit the vacant lot that they will be creating the proposal for. They will hopefully visit the lot several times throughout the unit, so they can measure, create diagrams and track the movement of the sun.

Students will also visit two other community gardens close to the school to examine how the gardens are set up and to use as models for their proposals. We will

have an expert on gardens from a neighborhood organization, Growing Westside, who can speak on the community gardens in the area and offer advice and information as needed. Students will also visit a peace with an expert who created the peace garden as a way to create a place of peace in an area known for violent crime.

Students will visit Belwin, a local conservation organization located at a state park about 45 minutes from the school. We will have an expert on the local ecosystems that can speak on environmentally sustainable options and speak to the environmental impact of the vacant lot.

Lastly, we will have a representative from city planning in Saint Paul, who can discuss what options have the most positive impact on Saint Paul as a whole.

Students will fill out a field guide for each location we visit that they will use in conjunction with various articles to inform them on what project ideas would be the best socially, educationally and environmentally. (See Appendix D)

Case studies. Students will look specifically at a local community garden, Stryker Garden that is only blocks from the school. They will look at how the land was obtained, the organization that created it and how it is maintained. They will also explore the negative impacts of vacant lots on communities.

We will also look at various case studies from other cities in the Midwest and other parts of the United States. The teacher will provide resources to help students brainstorm possible ideas for their individual proposals (See Appendix E). Students will be working in small groups to create their proposals, so they will be looking at different case studies and sharing what they have learned with their group. Through this exploration, students should have experience with various options that they can use to

create their own unique vacant lot proposals.

Classroom Structures and Protocols

Expeditionary Learning has specific classroom structures and protocols that they explore and teach in their various professional development workshops to help teachers make the most of their classroom time. They also provide numerous resources on their website to help teachers structure their classrooms. I will look at some basic structural components like Workshop 2.0 and specific protocols that are used to encourage and support cooperative learning.

Workshop 2.0. Most lessons will be taught using the Workshop 2.0 structure. Students will be given a question at the beginning of class and various resources they can use to brainstorm possible solutions. They will work with their tables groups to share information and formulate answers. These answers will then be shared with the large groups, and the teacher will either fill in missing information or clear up any misconceptions.

For instance, students will be asked why vacant lots are a problem in our communities. They will be given several articles to read that offer different opinions and information on the topic. Student will discuss what they have found in the articles with their table group and formulate an answer as a table. A representative from the table will write their group's answer on the board. The class will then go through all of the answers on the board, adding to or adjusting the answers as needed. Students will then be given homework where they use what they have learned in class to write a paragraph on why it is important that students develop the vacant lot next to their school. This paragraph will

then be revised and used to help them complete section four of the grant, Community Improvement/Benefit.

This classroom structure can be used in many other settings as well, but works particularly well for subjects where students already have some previous knowledge and experience. Since this unit will be the culminating unit of the year, students will have a lot of experience with the different topics and skills involved, therefore the Workshop 2.0 structure will be used for most daily instruction.

Cooperative learning groups. Although each student will be responsible for their own unique proposal, they will be working with a small group to research, brainstorm, offer feedback and edit work. These groups will elect a “project manager” that will act as the leader of the group and will focus on the craftsmanship of the final presentation board. Electing a “project manager” allows students to cultivate leadership skills by giving them added responsibilities that are outlined at the beginning to of the project.

Ideally groups will be 3 students with one student being high, one medium, and one low. Students will be using various protocols outlined in the next section to work together to brainstorm ideas and revise their work.

Classroom protocols. Since this is a culminating unit, most of the protocols used will be student centered, with the teacher acting as a guide, and checking in with small groups, as opposed to information being delivered through direct instruction. Most content will come from articles and other resources gathered by the teacher. (See Appendix E) The teacher will use reading protocols learned previously in the year to help students to pull out important information as needed. This protocol will have been

used extensively throughout the year, so student should be very familiar, but it will still be re-taught to students at the beginning of the unit to solidify understanding of the protocol. (See Appendix F)

The project and rubric will be introduced through the World Cafe protocol (See Appendix G). To aid in brainstorming ideas about community issues and vacant lot proposals, student will participate in carousel brainstorming. (See Appendix H) This can be used at various points in the unit, to help students discuss and share different ideas. During the research phase of the project, students will jigsaw articles to learn about different case studies and information about vacant lots and their impact on communities (See Appendix I). Students will be working with their groups to write, revise, edit and publish their work. They will be use peer critique protocols and Google docs to give and receive feedback on their writing (See Appendix J and K)

Summary

This unit will be taught at the end of the school year and take approximately 8 weeks to complete. The unit will be focused around the development of a vacant lot recently purchased by the school. Students will look at real word models of vacant lot revitalization, as they design their ideal vacant lot redesign. Students will be working in small cooperative groups to write a grant and create a presentation board that will be presented to the surrounding community at the opening of the neighborhood farmer's market.

This unit is designed using the different components from Expeditionary Learning. The unit will include community connections, case studies and fieldwork, and cooperative learning groups. Students will be working intimately with the surrounding

community who will act as experts and an authentic audience for student's final projects. This project will not only be educational for the students, but will also be a service to the school, as their ideas will be used to elicit feedback from the community and act as a starting point for discussions around the development of the vacant lot.

In chapter five, I will discuss some of the challenges I had when creating this unit. I will also discuss some of the recommendations I have for teachers and schools that wish to create interdisciplinary project-based units.

CHAPTER FIVE

Conclusions

Introduction

The decision to make my capstone about curriculum was an easy choice for me. I have been creating my own curriculum for the majority of my teaching career. When I was first introduced to Expeditionary Learning at my school, I knew that this was the structure I was looking for, but I also knew that I had a lot I needed to learn about what Expeditionary Learning is and how to use the different components to create a unit of study. My experience creating this curriculum has been challenging and immensely satisfying as I have worked to answer the question *How are the components of Expeditionary Learning used to design an interdisciplinary project based expedition at a middle school grade level?*

Expeditionary Learning is a new educational model, but can be linked to many different educational philosophies including experiential learning, project-based learning and interdisciplinary learning. These connections help to give Expeditionary Learning a strong basis in best practices while also incorporating ideas from outdoor adventure and non-traditional educational models. The philosophy behind Expeditionary Learning is ideal for middle school students who are active and social learners. They want relevance and a connection to the real world.

The unit that I created came from our guiding question for our 7th grade classes *What makes a community thrive and suffer?* This question was designed by the 7th grade team and has been our guiding principle when designing different units throughout the year. The vacant lot unit has been a challenge to design, but I am very proud of the final

unit and believe that it will be successful and engaging for 7th grade students. This chapter will reflect on the writing on the curriculum including the connections to the literature review, challenges and limitations and recommendations.

Return to Literature Review

When I first started this capstone, I had a general idea of what I wanted to do. I wanted to better understand what Expeditionary Learning was and how it connected to different educational pedagogies. I knew that Expeditionary Learning was engaging and interesting, but I wanted to know that it was grounded in research that showed it was good for students, not just fun for them.

I started my research with Kurt Hahn. He is credited with being the father of Expeditionary Learning. His experiences and ideas may be from WWII, but they still resonate with a lot of my own personal beliefs about education. He wasn't interested in just academic success; he was interested in character development. I have worked in schools where test scores are the only thing the principal or state cares about. But as a teacher, I care about students. So it was very encouraging to know that the school I worked at was as concerned with developing character and academics.

I also learned more about how the school design was created and how we are connected to Outward Bound. Though they no longer have a working relationship anymore, Expeditionary Learning's foundation comes from the adventure based learning programs of Outward Bound. I was very interested to see how this connected to the curriculum framework that Expeditionary Learning had designed. There is much more to Expeditionary Learning than just adventure and character development.

The research that I found, not only supported using Expeditionary Learning Components to create high quality and engaging curriculum, it also helped me to connect my own personal experiences to research and pedagogy. Relevance is an important part of education today. When I was younger, we didn't question our teachers or why we were learning certain subjects. We just did as we were told. Times have changed. Thanks to the Internet, students are more aware of what is going on in the world around them. That is what they want to learn about. Therefore, it is more important that we find ways to teach students so that they are engaged and feel that what they are learning is relevant to their lives outside of the classroom. Active or experiential learning was addressing these types of learning opportunities years ago by highlighting the importance of relevance and using real world issues in the classroom. They stressed the importance of using the community as a classroom. This was very helpful to me as I processed the different components of Expeditionary Learning. The ideas expressed by Dewey and Kolb aligned with using community experts, engaging in fieldwork and using authentic audiences to present student created projects. They stressed the importance that education is not just something that happens in the classroom.

In order for the ideals of Dewey and Kolb to actually work in a school, the school needs to embrace interdisciplinary and project based learning. These two ideologies focus on the construction of lessons and projects that help students to engage with real life issues in their communities. This helped guide our 7th grade team as we brainstormed how we could use the newly purchased vacant lot adjacent to our school as a subject for a unit. I was particularly interested in Jacob's discussion of the potpourri or polarity problem. The potpourri problems centers on the idea that practitioners do not have a

clear scope or sequence for the unit, and they simply pull a little bit from each discipline without a clear unifying structure. The Polarity problem refers to one teacher pulling the unit towards their specific discipline. The other disciplines simply support the main discipline. This issue is one that we have come across several times when working with a team of teachers to design interdisciplinary units. How do you make the unit work for all of the disciplines? We are constantly discussing this issue as a team as we refine and add to our curriculum. I have found that as an English teacher, I have more flexibility with my role in a unit, and am able to pull content from the other disciplines while also developing the necessary skills needed for my students to be meeting standards.

When I began my research a few years ago, there was not a lot of specific research on Expeditionary Learning that was not written by people directly involved in the organization itself. This has changed as the Expeditionary Learning network has expanded and started working with different organizations. There are now many more books and articles that review the principles and components of Expeditionary Learning and connect them to increased engagement and graduation rates. I think that I could add many more pages to my literature review with all the new research that is now available about Expeditionary Learning. I think it is very helpful that there is more research that supports this type of educational philosophy.

Challenges and Limitations

This curriculum design has been very challenging to create for various reasons. Expeditionary Learning has many different components that often ask teachers to work outside of the school building to create lessons and projects.

Interdisciplinary teaching makes a lot of sense. In the real world, all of the work that we do is integrated; therefore it makes sense that we integrate our curriculum. Unfortunately our current education system is not set up to support this type of teaching. Students are divided into different classes based on subject, and teachers must teach state standards by subject area. So how do we integrate our subjects into one cohesive project that is relevant to students? This is the biggest challenge with this type of curriculum and it requires that teachers have enough time to work together to create lessons and assessments.

Expeditionary Learning as a school framework helps to support teachers by providing professional development where teachers can work together to create curriculum with teacher leaders there to support them and provide different resources. Teachers must also be willing to work together and compromise to create a project that addresses different subjects. There is a lot of pressure on teachers to meet many different state standards, so it can be difficult for them to feel that they can integrate curriculum while meeting the needs of the students and addressing all necessary state standards.

Another challenge is finding community connections. The idea behind involving the community into the classroom is beneficial for students, but extremely difficult for teachers. I have worked with my 7th grade team to try and brainstorm different community people that could be involved with the project. We then have to contact these people, explain our curriculum and then schedule meeting times; this process can be overwhelming and time consuming. One of the biggest struggles is the constraints of our school schedule and the size of our classes. Not all places can accommodate 70 students at a time.

Time is always a limitation in teaching. There just isn't enough of it. Although we have time built into our schedule to work together as a grade level team, we are rarely able to accomplish all that we need to get done in the time allotted, and we are forced to meet outside of school. In addition to this class, most teachers on the team are teaching other grade levels and are therefore engaged in writing curriculum with other teams at the school. This time constraint issue is one that many teachers and schools face throughout the country. There are no easy solutions to this problem, but it is important that teachers are aware of the additional time it requires to build interdisciplinary project based learning curriculum.

Personally, I had a lot of specific challenges when it came to writing this capstone. I have two young children, which in itself is a huge barrier for finding time to write. In addition, both of my children were diagnosed with hearing loss while I wrote this capstone. As you can image, this threw us for a loop. We had to learn about hearing loss and hearing aids, attend IEP meetings, and just learn to cope with our new reality. I had to take an extension to finally finish this capstone. So I am beyond overjoyed that I was able to persevere and finally complete my work. It may have taken me extra time, but I feel like it was totally worth it.

Recommendations

Interdisciplinary teaching requires that teachers work in a team to create integrated units. Schools need to provide teachers ample time to work together to enable them to create well thought out curriculum. My school has PLCs, professional learning communities, embedded into our daily schedule. This gives the team time to meet every week so that we can design and revise our lessons. If a school does not have this built

into the schedule it can be extremely difficult to design an interdisciplinary curriculum. Therefore it is vital that the school structure and administration support interdisciplinary teaching by providing time for teachers to collaborate.

Finding community resources to use in and out of the classroom can be difficult and time consuming. I have found that in order to be successful and to make connections, I attend as many community events as I can and meet as many people as possible. Networking has never been my strength, but if you are truly inspired by the work you are doing in the classroom, and speak from the heart, people want to help. I have also called upon parents whenever possible. They are often willing to help, or they can provide you with resources and connections.

Social media is another really helpful tool to find and connect to different people in the community. Many community groups utilize social media sites like Facebook to connect to members of the community. I have created a Facebook account just for school, so I can connect with community groups and our school's PTO Facebook page.

Projects are a big part of Expeditionary Learning, but creating an interesting and challenging project is not always easy. During one of our Expeditionary Learning professional development workshops, we were shown many different examples of projects created in other schools around the country. There are also many resources available online through Expeditionary Learning. Brainstorming with colleagues is also very beneficial in trying to figure out an appropriate project for students that pull on content and skills from various disciplines. This requires that staff is trained in Expeditionary Learning and willing to get involved in the process of curriculum writing.

When I first started at the school, I was very confused by what Expeditionary Learning is and how it fits into the structure of the school. I think that it is important that staff is properly trained in Expeditionary Learning as soon as they enter the school, so they can fully participate in the creation and revision of expeditions. Our school has been working hard to make this happen by creating an “Election to Work Agreement” that outlines the requirements of teachers and administration in regards to involvement and training in Expeditionary Learning. This agreement also informs teachers before they take a position at our school, what our school philosophy is and how they will be asked to participate. Since we are not a traditional school, it is important that teachers understand what we are about before they choose to work at our school. It is also vital that the administration provides adequate time and training for new teachers, so they can better understand the philosophy and framework of Expeditionary Learning.

Final Reflections

This capstone and curriculum design has been very beneficial to my teaching career and philosophy. I feel a lot more confident in what I am doing in the classroom, and with the curriculum that I am designing. I have been creating my own curriculum since I first started teaching 10 years ago. I didn't really know what I was doing, and often felt anxious and frustrated by the lessons and assessments I was delivering. This has changed drastically in the last five years. Through my experiences with Expeditionary Learning and the educational foundations discussed in my literature review, I can create lessons that are grounded in best practices and are relevant and engaging for students.

Expeditionary Learning is an interesting, but somewhat complicated educational framework. I have struggled since joining my current school, with explaining what Expeditionary Learning is to people. I now have a better overall understanding about the philosophy, and am often a spokesperson for my school and our educational design. This is extremely important at my school, as we are a magnet school, so families must choose to send their students to our school. It is important that we can, not only deliver an engaging and challenging curriculum, but also that we communicate that to families.

The unit that I have created using Expeditionary Learning components will hopefully be engaging and relevant for my students. I know that it will be challenging at times for me to deliver this curriculum, but it is interesting enough to me as a teacher, I think I will enjoy the challenge. Since I have created this curriculum, I have found that I am more aware of community involvement opportunities across my city and I am more willing to get involved. When I am at various community events, I often reference the work that I have been doing with this capstone and how I hope to use this curriculum to not only teach my children skills, but to encourage them to be more involved in their own communities. This curriculum has inspired me in ways that I hadn't foreseen. In addition to the curriculum I created for 7th grade, I am now working on writing curriculum for my 9th and 10th grade classes using the same methods as this curriculum. I really hope that other teachers are able to also find inspiration and guidance in the work that I have created. Project-based learning is not a new concept, but it seems to be even more relevant today than it was in the past.

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Appendix A

State Standards and Benchmarks

English Language Arts

7.5.3.3 Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).

7.7.2.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

7.7.4.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

7.9.4.4 Present claims and findings, respect intellectual properties, emphasize salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples.

Life Science

7.1.3.4.1 Use maps, satellite images and other data sets to describe patterns and make predictions about natural systems in a life science context.

7.4.4.1.2 Describe ways that human activities can change the populations and communities in an ecosystem.

7.1.1.2.4 Evaluate explanations proposed by others by examining and comparing evidence, identifying faulty reasoning, and suggesting alternative explanations.

Math

7.1.2.5 Use proportional reasoning to solve problems involving ratios in various contexts.

7.2.4.2 Solve equations resulting from proportional relationships in various contexts.

7.3.2.3 Use proportions and ratios to solve problems involving scale drawings and conversions of measurement units.

Social Studies

7.1.1.1.1 Exhibit civic skills including participating in civic discussion on issues in the contemporary United States, demonstrating respect for the opinions of people or groups who have different perspectives, and reaching consensus.

Appendix B
Learning Targets

English/Language Arts LTs	Life Science	Pre-Algebra LTs	American Studies LT
<p>LT1:I can analyze how people, events, and ideas interact in multiple texts LT2:I can write a clear informative paragraph with relevant content and clear organization LT3:I can engage in the writing process LT4:I can create a polished product with attention to detail and beauty</p>	<p>LT1: I can describe human impacts and mitigations for Minnesota’s ecosystems. ST1: I can use maps, satellite images and other <u>data sets</u> to describe patterns and make predictions about natural systems in a life science context. ST2: I can describe ways that human activities can change the populations and communities in an ecosystem. *Life cycle (growing conditions, flowering times, food sources, pollination needs, etc.).</p>	<p>LT4: I can represent area as a percentage. LT5: I can formulate calculations, making reasonable estimations and approximations of rational numbers. LT6: I can apply mathematical models to real-world problems.</p>	<p>LT 1 - I can describe how vacant lots impact communities, provide a realistic solution to this problem, and discuss the impact of this solution on the community</p>

Appendix C
Assessment Rubric

	Exemplary	Proficient	Developing	Novice
Grant Proposal				
Section 1 Organization Information and Background (ELA -LT1)	<p>-Paragraph has a thorough discussion of the school, the Vacant lot project, and the different partners involved in the project.</p> <p>-Paragraph has a clear structure that includes a topic sentence and supporting details.</p>	<p>-Paragraph discusses the school, the Vacant lot project, and the different partners involved in the project.</p> <p>-Paragraph has a clear structure that includes a topic sentence and supporting details.</p>	<p>-Paragraph discusses the school, the vacant lot and the different partners, but important information is left out.</p> <p>-Paragraph has some structure but may not include topic sentences or enough supporting details</p>	<p>-Paragraph discusses some aspects of the school and the project, but lots of important information is left out.</p> <p>-Paragraph does not have a clear structure and is missing topic sentences and supporting details</p>
Section 2 Proposal Paragraph (ELA-LT2) (Science-ST2)	<p>-Vacant lot idea is clearly explained with descriptive details and reasoning</p> <p>-Paragraph has a clear structure</p>	<p>-Vacant lot idea is clearly explained with relevant details and reasoning</p> <p>-Paragraph has a clear structure that includes a topic</p>	<p>-Vacant lot ideas is explained, but lacks relevant details and reasoning</p> <p>-Paragraph has some structure but may not include</p>	<p>Vacant lot idea is explained, but it lacks details, so it is hard to understand.</p> <p>-Paragraph does not have a clear structure and is</p>

	<p>that includes a topic sentence and supporting details.</p> <p>-Pattern of life cycle* described for 5 organisms</p> <p>-Source for data set given</p>	<p>sentence and supporting details.</p> <p>-Pattern of life cycle* described for 3 organisms</p> <p>-Source for data set given</p>	<p>topic sentences or enough supporting details</p> <p>-Pattern of life cycle* described for 1 organism</p> <p>-Source for data set given</p>	<p>missing topic sentences and supporting details</p>
<p>Section 3 Visual Diagram/Map (Math-LT4, LT6)</p>	<p>All items under proficient, plus:</p> <ul style="list-style-type: none"> - Includes multiple schematics of lot (side/etc) - Percentages of land use are clearly stated and justified 	<ul style="list-style-type: none"> - Is neatly drawn to scale - Gives an accurate representation of the plan for use of the space - States percentage of land use broken up, with explanation justifying these percentages 	<ul style="list-style-type: none"> - Visual is messy, inaccurate, not drawn to scale - Percentages provided are not accurate; do not reflect how land is actually being used. 	<ul style="list-style-type: none"> - No visual is provided, visual is not a map. - No percentages are provided for land break-up, or numbers are inconsistent
<p>Section 4 Community Improvement/ Benefit (ELA- LT2) (American Studies LT1)</p>	<p>-The specific needs of the community and the schools are addressed with in depth evidence and reasoning that uses input from community stakeholders</p> <p>-Paragraph has a clear structure that includes a topic sentence and supporting details.</p>	<p>-The general needs of the community and the schools are addressed with evidence and reasoning</p> <p>-Paragraph has a clear structure that includes a topic sentence and supporting details.</p>	<p>-The needs of the community and schools are not completely addressed</p> <p>-Paragraph has some structure but may not include topic sentences or enough supporting details</p>	<p>The needs of the community and/or school are not discussed</p> <p>-Paragraph does not have a clear structure and is missing topic sentences and supporting details</p>

Section 5 Environmental Impact (Science-ST1)	-A claim is made about how 3 natural components will change the population and community in the surrounding ecosystem. -Claim is supported with evidence. -Source for evidence is given.	-A claim is made about how 2 natural components will change the population and community in the surrounding ecosystem. -Claim is supported with evidence. -Source for evidence is given.	-A claim is made about how 1 natural component will change the population and community in the surrounding ecosystem. -Claim is supported with evidence. -Source for evidence is given.	-Pattern of life cycle* described for NO organisms OR -Source for data set is not given OR source for evidence is not given. -No claim is made about the natural components of proposal.
Budget (Math-LT5 (LT6))	All items under proficient, plus: - Estimates for <u>all</u> items and upgrades are cited - Estimates for yearly upkeep and operating costs - All sources of revenue are clearly outlined	-Itemized and broken up into what money will be spent on as well as where it will come from - Estimates from companies for most upgrades, cited - Is within budget, or has convincing argument justifying spending.	- Purchases are not itemized - Calculations are incorrect for totals or not cited - Estimates are significantly off accepted values - Total is significantly out of budget, with no listed justification	- No Budget is provided - Budget is vastly unrealistic, no justification is provided - Numbers are randomly generated, or no numbers are provided
Presentation Board				
Presentation Board Requirements (ELA- LT1, ELA-3)	All items are included, plus additional information (see Presentation Board Checklist)	All items are included, plus additional information (see Presentation Board Checklist)	Some items are included, plus additional information (see Presentation Board Checklist)	All items are included, plus additional information (see Presentation Board Checklist)
Proposal (ELA-LT4)	-Board has a clear and concise	-Board has a clear and concise summary of ideas	-Board has a summary of ideas from grant	-Board has a summary of ideas from grant

	summary of all ideas from grant proposal	from grant proposal	proposal, but is lacking some important information.	proposal, but it is lacking sufficient information
Craftsmanship (ELA -LT4)	<ul style="list-style-type: none"> - Exceptional work - Student completely understands project - Zero spelling and grammatical errors - Well organized - Clear, very easy to read 	<ul style="list-style-type: none"> - Quality, carefully constructed work - Demonstrates understanding of project - All items are clearly proofread, no clear spelling or grammatical errors - Clear, easy to read 	<ul style="list-style-type: none"> - Work appears rushed or hurried - Partially shows understanding of project - Assignment was not edited or proofread, appears to be a first draft - Some spelling/ grammatical errors exist - Messy work; difficult to read 	<ul style="list-style-type: none"> - Not much time spent on assignment - Student clearly doesn't understand assignment or purpose of assignment - Many errors exist; appears to be a rough draft of proposal

Presentation Board Checklist:

- Organization Information and Background (Collaborative Paragraph)
- Summary of Proposal for Each Group Member
- Summary of Community Involvement/Benefit
- Visual Diagram/Map
- QR codes that link to grant proposals for each group member

Appendix D

Field Guide

Name of Place _____

Observation

What do you see?

Create a drawing of the place. Close-up of a specific part, or a wide view.

Who is using the place?

How are they using the place?

Are their animals in the place? Domestic/Wild? Amount?

What kinds of plants are there? Type? Variety? Native/invasive?

What percentage of the land is man-made, wooded, open, other?

Is there art? Type? Amount? Commissioned/Graffiti?

Sensory Details. What do you see? Hear? Smell? Feel? Taste?

History/Background/Research

When and how was this place created?

Who maintains this place?

How many people use this place annually?

What activities are available at this place?

Conclusions/Inferences/Evaluations

Is the place clean? Why do I think that? Evidence.

What are some things that I liked about the place? Why?

What are some improvements that could be made? Why?

How does this place connect, engage or reflect the community?

How does this place benefit the community?

How does this place impact the ecosystem?

Appendix E

Vacant Lot Resource Links

<http://city.milwaukee.gov/ImageLibrary/Groups/cityDCD/planning/pdfs/VacantLotHandbook.pdf>

http://detroitagriculture.net/wp-content/uploads/Treatment-Guides_All_web.pdf

https://fef.td.com/wp-content/uploads/2013/03/TD-OutdoorClassroomGuide_ENG_FINAL.pdf

<https://gtechstrategies.org/wp-content/uploads/2013/10/VacanttoVibrant.pdf>

<http://planning.city.cleveland.oh.us/ftp/8IdeasForVacantLandReuseCleveland.pdf>

http://www.baltimoresustainability.org/wp-content/uploads/2015/12/Green_Pattern_Book.pdf

http://www.birminghamal.gov/download/comprehensiveplan/5_Cleveland%20ideas-to-action.pdf

http://www.cudc.kent.edu/projects_research/research/East%20Akron%20Revitalization%20Plan%20-%20Low%20res.pdf

<https://www.fws.gov/cno/pdf/HabitatGuideColor.pdf>

https://www.nrpa.org/uploadedFiles/nrpaorg/Grants_and_Partners/Recreation_and_Health/Resources/Issue_Briefs/Pocket-Parks.pdf

http://www.placemakingchicago.com/cmsfiles/placemaking_guide.pdf

<http://www1.nyc.gov/assets/doh/downloads/pdf/environmental/active-design-community-guide.pdf>

<https://www.usmayors.org/bestpractices/vacantproperties06.pdf>

Appendix F

Reading Protocol

First Read

Purpose: to get the gist

Tools: Text Structures/Features

- Title
- Headings
- Bolded and Italicized words
- Pictures and Captions

Second Read

Purpose: to engage with the text

Tools: Text Code/Annotate

- Underline or Highlight key ideas
- Circle unknown words
- ✓ ideas that you connect with (text to self, text to text, text to world)
- ! surprising or new information
- ? confusing ideas

Third Read

Purpose: to capture the information

Tools: Various

- TDQ (Text Dependent Questions)
- Note catcher/Graphic Organizer
- Double Entry Notes/Journal

- Note taking
- Cornell Notes
- Discussion

Appendix G

World Cafe Protocol

Purpose: The purpose of this protocol is to allow students to discuss and share ideas with multiple classmates. Students will have the opportunity to work with many different students as they work through the protocol. Since the roles rotate, all students will be actively involved.

Procedure:

1. Each group selects a “recorder.”
2. The recorder’s role is to record the major points of the conversation that takes place at the table on the note catcher provided by the teacher.
3. The group discusses the topic or question until time is called. Time can vary depending on topic or question, 2-3 minutes is typically a good time frame.
4. After time is called, the recorder stays put; the rest of the group rotates to the next table.
5. The recorder (the one who didn’t move) presents a summary of the conversation recorded from the former group to the new group.
6. Each table selects a new recorder. The note catcher is passed to the new recorder (the note catcher will stay at the table for the entire protocol)

7. Again, the new recorder's role is to record the major points of the conversation and to then summarize the conversation using the recorded notes during the next rotation.

8. Repeat the process, ideally until all participants have had a chance to record.

9. After the final round, the last group of recorders present to the whole group rather than reporting out to a "next rotation"

Appendix H

Carousel Brainstorm

Purpose: The purpose of using the carousel brainstorm protocol is to allow students to share their ideas and build a common vision or vocabulary; facilitators can use this process to assess group knowledge or readiness around a variety of issues.

Procedure:

1. Before your group gathers, the teacher identifies several questions or issues related to the topic.
2. Post questions or issues on poster paper.
3. Divide students into smaller teams to match the number of questions created.
4. Each team is given a different color marker, and start at a particular question or poster.
5. At each question, participants should brainstorm responses or points they want to make about the posted question.
6. After a couple of minutes with each question, signal the teams to move to the next question, until all teams have responded to all questions.
7. You can conclude the activity by having each team highlight key points at their initial question or star the most important points and discuss those.

Adapted from Expeditionary Learning Protocols, 2013

Appendix I

Jigsaw Protocol

Purpose: This protocol allows small groups to engage in an effective, time-efficient comprehension of a longer text. Having every participant read every page or section may not be necessary. Participants can divide up the text, become an expert in one section, hear oral summaries of the others, and still gain an understanding of the material.

Procedure:

1. Divide the chosen text into manageable sections, or choose different smaller texts around a central topic or theme. This is an opportunity to find different readings based on student's ability level.
2. Arrange participants into groups so that there are the same numbers of people in each group as there are sections or texts to read.
3. Assign the text selections to each member.
4. Participants read their section independently, looking for key points, new information, or answers to questions. (They should use the reading protocol previously discussed in Appendix F)
5. Each member in turn shares his/her important points or summaries of the text.

6. Students independently write/reflect on their own understanding after the discussion

Appendix J

Peer Critique Protocol

Purpose: This protocol can be used to offer critique and feedback in preparation for revision of work. It should be used after students have completed at least one rough draft. This process will help participants see what is working and then ask questions and offer suggestions, leading to revision and improvement. It is important participants understand that the focus should be on offering feedback that is beneficial to the author/creator.

Procedure

1. Begin with the non-negotiables:
 - **Be Kind:** Always treat others with dignity and respect. This means we never use words that are hurtful, including sarcasm.
 - **Be Specific:** Focus on particular strengths and weaknesses, rather than making general comments like “It’s good” or “I like it.” Provide insight into why it is good or what, specifically, you like about it.
 - **Be Helpful:** The goal is to positively contribute to the individual or the group, not to simply be heard. Echoing the thoughts of others or cleverly pointing out details that are irrelevant wastes time.
 - **Participate:** Peer critique is a process to support each other, and your feedback is valued!

2. Have the author explain his or her work and explain exactly what type of critique would be helpful (have students refer to assignment criteria, writing rubric or other writing objectives given by the teacher).
3. The critique audience should begin comments by focusing on something positive about the work (“warm” feedback), then move on to constructive sharing of issues or suggestions (“cool” feedback).
4. When critiquing a peer’s work, use “I” statements. For example, “I’m confused by this part,” rather than “This part makes no sense.”
5. Use questions whenever possible. For example, “I’m curious why you chose to begin with...?”, or “Did you consider adding...?”

Appendix K

Praise, Question, Suggest

Purpose: This protocol can be used to offer critique and feedback in preparation for revision of work. It should be used after a rough draft has been completed. This process will help participants see what is working and then ask questions and offer suggestions, leading to revision and improvement. It is important participants understand that the focus should be on offering feedback that is beneficial to the author.

Procedure

1. Provide product descriptors and rubrics as clear guidelines of the expectations and criteria for the piece of work that will be critiqued. If the work is written, copies for the critique group are helpful.
2. Participants work in groups of 2-5.
3. The first participant presents/reads the draft of her piece. They may ask peers to focus on a particular section or criteria (students should refer back to writing requirements and rubric for guidance)
4. Feedback is best written on Post-it notes and given to the author. Peers first focus on what is praiseworthy or working well. Praise needs to be specific. Simply saying, "This is good" doesn't help the writer. Comments such as, "I notice that

you used descriptive picture captions” or “You have a catchy title that makes me want to read your piece” are much more useful.

5. Next, ask questions and offer helpful suggestions. “This part is unclear. I wonder if it would be better to change the order of the steps?” or “I can’t tell the setting. Maybe you could add some details that would show the reader where it is taking place?” or “I wonder if adding a graph to highlight your data would be effective?”
6. Feedback should relate to the project requirements and/or rubric.
7. After each member of the group has offered feedback, the presenter discusses which suggestions they want to implement and thanks the group.
8. Others then present their work in turn and cycle through the feedback process