Place-Based Education and Its Impact on Students

by

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Abstract

Place-based education provides students with an engaging, interactive way of learning, where they can visit places within their communities for research and projects. This research shares the findings from an investigation of how place-based education can be used effectively with all grade levels and content areas and highlights the learning benefits for all students, no matter their ability level or personal background. Studies show that one of the most significant advantages is increased motivation because students develop a project of their own interest and complete the research process in a way that makes sense to them, with educators present for guidance. Another advantage is that students develop social awareness and mindfulness by exploring local issues and histories. Based on this information, I conclude that all students can benefit from becoming involved in the places and histories surrounding their communities while focusing on various subject areas. This research will also include examples of successful place-based education.

Introduction

      While in school, did you ever feel disconnected from what you were learning? This is the feeling of many students today as they go through their education being taught to meet the goals of state standards. Although teaching to standards is best practice, students sometimes get lost in all the content and goals they must meet. This is true especially when students do not feel connected to what they are learning. Growing up, I did not always do the best I could have in school because I did not know why we were learning the content being presented by teachers. I wondered how it all connected and how any of it, in the long run, affected my surroundings. Many students have this same feeling of disconnection from school content and its purpose (Smith, 2007). A variety of methods can help students overcome this feeling, such as a hands-on learning approach or problem-based learning. However, an approach called place-based education targets this very problem and creates engaged, curious learners who can use their skills in and out of the classroom.

      While not widely appreciated or utilized enough yet, place-based education has seen success in different parts of the country and the world. Much of its success is due to the bridge that it builds between the curriculum and sites in the community that are investigated by students (Stevenson, 2008). The idea of taking students to a place in the community for learning has been researched thoroughly and has been broadened for the sake of place-based education. What started as just going to outdoor sites for place-based projects has been expanded into exploring other types of sites, such as museums or historical buildings (Stevenson, 2008). To make ventures to these sites beneficial, educators plan thorough lessons and projects, with many of the assignments decided with students. Many classes and educators seek out a project together and set the purpose for their research together, so that they all are a part of the project (Smith, 2007).

Before beginning a project, educators must define the process that they will guide their students through. The typical process is that of six phases, including define, gather, play, design, make, and exhibit (Edwards-Vandenhoek, 2018). Each step of the process has educators acting as guides in the learning process, not giving their students all the answers or even set directions for the research process. The phases also have students in the roles of leaders and often working in teams to construct their own version of the research process, one that works best for what they are trying to accomplish. Throughout each of these steps, students go back and forth from their school to the place of study in their community when needed. Students visit the place of study frequently during the define, gather, and play phases, which encompass the initial inquiry launch for the project and the types of experimenting and researching students will complete for their project.

Because of the different ways in which the projects are set up and run, place-based education holds different names in different places. In researching this topic, I found that the most consistent names for place-based education include outdoor education, experiential education, community education, service learning, and community service. There is confusion surrounding what to call this type of education due to the many ways that these programs are run and how educators interpret what place-based education is. Place-based education is different than these other types of initiatives, even though some overlap has been found in the types of goals and activities involved. Another reason so many names are used for place-based education is that it can be adapted to meet students' needs within different communities (Deringer, 2017). The concept has been around for a long time, but the actual phrase is surprisingly newer (Evans and Kilinc, 2013).

Place-based education has been exciting for researchers to investigate because of the multitude of ways in which its programs ignite student wonder. The levels of projects are often catered to students' academic levels, while the places they research depend on what would be

of great interest to them in their communities. As this research explores later, students become more mindful regarding their education and how it connects to their daily lives through place-based models (Deringer, 2017). Overall, place-based education has the potential to make students' education more meaningful to them in their daily lives. It promotes inquiry in students' daily lives as they make connections between their learning and their experiences. However, many factors should be considered to implement efficient place-based programs that combine the places themselves and the curriculum.

History of Place-Based Education and Its Definition

To understand place-based education to its fullest extent, one must first investigate how it came to be and why. A study completed in 2013 concluded that the main need for place-based education comes from a child's inability to "utilize the experiences he gets outside the school in any complete and free way within school itself" (Evans and Kilinc, 2013, p. 4). It was also concluded that children lack the abilities needed to apply what is being learned in school to instances in daily life (Evans and Kilinc, 2013). With this, researchers from the study broadened their search into the theoretical underpinnings of place-based education, to see where some of the first ideas for it came from. This led them to John Dewey's definition of place-based education, which was one of the earliest documented. Dewey saw it as an experience for students outside their schools, which included different components such as geography, art, literary, historical, and scientific (Evans and Kilinc, 2013).

Dewey provided the name "outdoor education" to this type of student experience, which led him to deduce the importance of the combination between the natural and constructed environments surrounding students (Evans and Kilinc, 2013). His idea supports the need for place-based programs to combine what is done outside of school and inside school for greater balance in the lives of children. Dewey saw outdoor or place-based education as a bridge between what is being taught in the classroom and the outside world (Evans and Kilinc, 2013).

Place-based education was mainly used for social studies, at first, with its main purpose to provide context for geography lessons (Evans and Kilinc, 2013). Students were able to see the actual places they were studying in their communities relative to the places they inhabited in those communities. There was also large focus in the beginning to have those who held leadership positions in communities help educate children about the innerworkings of their community (Evans and Kilinc, 2013). This broadened the scope of place-based education from geography to include civics early on. Leaders might include city council members, the mayor, bankers, police officers, and others within the community, all of whom can explain community needs and laws to students, so they comprehend how specific societies function, incorporating civics. This helped educators see that place-based education has the potential to be broadened into other aspects of social studies and even go beyond to other subjects.

After the initial focus on social studies, science became another subject of interest for educators utilizing place-based education. It is important to note that after Dewey publicized his research on outdoor education around 1915, it took many years before other theorists and educators researched it thoroughly (Evans and Kilinc, 2013). In fact, place-based education was not fully recognized as a research-based educational approach until the mid-1990s (Smith, 2007). So, the discovery of place-based education took a long time, and some of its value has not yet been fully uncovered to this day. What educators quickly discovered while trying to implement place-based education into science lessons was that a lot of place-based assignments were already being implemented. For instance, to drive lessons in science, educators were already using ideas such as field trips, nature journals, current events, and identity posters to benefit students (Ebersole & Worster, 2007). Since these ideas and lessons were already being implemented into a lot of science classes, elements of place-based education were present before it even had a name; therefore, all science needed was a stronger variety of meaningful places for students to study.

It is marvelous to think that place-based education was embedded into many science classes without having the title attached. This is especially true since researchers such as Jennie Cramer of the Ecological Institute for Applied Ecology cites that there is a lack of connection between children today and the nature around them (Cramer, 2008). She even goes as far to say that with the research she has conducted regarding place-based education, many children who lack the influence of the different elements of nature develop attention deficit disorders or a series of anxiety related disorders (Cramer, 2008). This conveys how important connecting to and learning about the outside world can be for students. Especially in today's world, educators and parents alike need to find ways to show children the world that is beyond their electronics, and place-based education can help with this problem tremendously.

Once educators realize they already have many place-based assignments aligned to their science curriculum, the opportunity to tie in other place-based components opens. For example, when Cramer was conducting her research back in 2008, she noted that science has the potential to easily include place-based components such as ecological and cultural preservation as well as service learning in the community (Cramer, 2008). Science in general fits the idea of place comfortably because educators can choose many outdoor places in communities, such as parks, local streams or even the school grounds, for students to explore without much hassle. After studies such as Cramer's and many others were conducted, educators began to utilize place-based ideas in both social studies and science, or even combine them.

Over the many years of discovery and research into place-based education, many other subjects have been added into the pool of implementation. Figure 1 shows the many subjects that teachers, principals, and students believed were used the most in a series of place-based

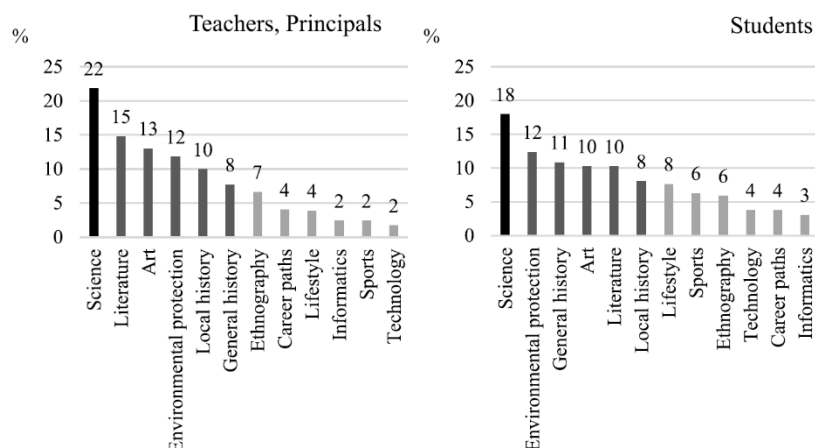lessons in a Hungarian out-of-school setting (Fuz, 2018).

Figure 1. Subjects Included in Place-Based Lessons

Figure 1 represents just how many skills students, teachers, and principals see being

incorporated into place-based lessons. Other types of learning that have been connected to

place-based education over the years are expeditionary learning, project-based learning, and

problem-based learning (Smith, 2007). Expeditionary learning is essentially when students

embark on trips, sometimes known as learning expeditions outside the classroom. All these

types of learning have been connected to place-based education at times because they all have

to do with either student inquiry or going somewhere outside of school to learn, just as place-

based education encompasses.

As far as clearly defining what place-based education is, it is hard to hone-in on one

specific definition because of how differently schools have structured their programs. Some

programs look different than others because of the amount of administration support for the

programs or the varied ways in which place-based education can be implemented (Deringer,

2017). Organizations have been founded that have contributed to the pool of definitions. One

organization that has made great strides in place-based education studies is the Southeast

Michigan Stewardship Coalition. The organization describes place-based education in their

mission statement, saying that it is about connecting to and finding ways to protect one's "place" ("Our Mission," 2008). Even though this definition is broad, it provides an overall idea into the purpose behind place-based education.

Another organization, the Great Lakes Stewardship Initiative, goes a little more in depth. This organization acts as the overarching organization to nine smaller groups throughout Michigan, with the Southeast Michigan Stewardship Coalition being one of its biggest participants ("Connecting Education," 2007). They describe place-based education as using the community and the environment students inhabit as a context for learning ("Connecting Education," 2007). They also state that an important part of place-based education is to provide students with hands-on and inquiry-based opportunities to support their community's needs ("Connecting Education," 2007). The definitions from these organizations consist of both similarities and differences, but there is potential for an adequate, general definition to be formed.

To provide more clarity into the practice of place-based education, researcher and lecturer S. Anthony Deringer cites five common themes among place-based programs as follows: cultural studies, nature studies, real-world problem solving, internships and entrepreneurial opportunities, and work in the community (Deringer, 2017). Deringer cites this idea from colleague Gregory Smith and expanded upon Smith's idea to add that these are the common themes because they are the easiest to apply to different settings (Deringer, 2017). Even though this is not a clear definition of what a place-based program entails, it grants more insight into what place-based programs include. Deringer's framework (2017) provides a nice overarching idea of what place-based education should have, even if only one or a few of the themes are used.

Jennie Cramer, who sees a lack of connection between nature and children today, classifies place-based education as engaging students in the local community to learn about

where they live (Cramer, 2008). She goes further to point out that it is about achieving the larger goal of sustaining local ecology and cultures (Cramer, 2008). Cramer's definition focuses on how students can truly serve as agents of change in their communities through place-based education projects while continuing to learn. To go along with the idea that place-based education puts students directly in the community to learn, Samantha Edwards-Vandenhoek (2018) summarized it as a culture-centered approach to learning and knowledge. She also noted that it is important that educators realize place is the main context for learning (Edwards-Vandenhoek, 2018). Understanding place-based education as a culture-centered approach where students can be agents of change in their communities provides an effective framework for developing projects and programs.

To summarize, the definitions that encompass the broad range and the main idea of place-based education are the definition from the Great Lakes Stewardship Initiative and Cramer's idea for improving the connection between nature and students. Deringer's framework, (2017) as described before, gives the general ideas of what place-based projects should be focused on and built off. These definitions hone-in on students finding a connection to their communities and helping those communities. They also consider what students can learn from the opportunities granted from place-based education projects, ranging from cultural studies and history to entrepreneurial possibilities in communities.

It is important for those who want to try place-based education to understand that place-based projects can be extremely different; however, an efficient place-based education project should have some if not all the components listed throughout these definitions. There should always be opportunities for students to get into their communities and inquiry-based lessons for students to become agents of change for their community and in their own education. If recognized more often and researched thoroughly by a greater number of educational

researchers, place-based education could be harnessed by many more educators to help students feel connected to the outside world in an authentic manner.

Features of Place-Based Education

A variety of aspects go into planning and implementing place-based programs. The five key aspects or essential ingredients for effective place-based programs and projects are as follows: a shared vision for the class research, an integrated curriculum, opportunities to explore individual interest within the project, students' sense of ownership, and pride (Edwards & Miller, 2006). Educators must use these ingredients to inform how they structure the research process within the project for students. Various studies provide insight into how educators can implement these ingredients into the main features of place-based education ("Our Mission," 2008).

Inquiry Launch

To implement a place-based program for students, teachers should start with an inquiry launch. Inquiry launching is important to begin place-based projects because students must be captivated by the place being studied and feel connected and curious about what they will learn. It also motivates them to want to be involved in the project by posing a challenge, motivation being one of the main advantages of place-based education that will be discussed in depth later. The Southeast Michigan Stewardship Coalition offers an idea called Challenge Letters for the important step of inquiry launching for students. The letters are usually used specifically for when educators are newer to the place-based approach and may need assistance in engaging their students in a focused inquiry ("Challenge Letters," 2008). The letters usually come from a partner in the community that has a problem that students could solve, that problem being grade-level appropriate and approved by the teacher ("Challenge Letter," 2008). This is a great idea when first launching the place-based project of choice. Challenge letters are just one idea

to ignite the initial inquiry from students; another strategy is to take students to the place to be studied.

Places of Study

Taking students to the place to be studied, especially once some initial research is done that determines what the projects are to be based on, can ignite inquiry as a base for learning. Some examples of places that teachers use for place-based education projects are museums, zoological gardens, educational trails, national parks, agricultural plants, and forests (Fuz, 2018). The type of inquiry launch involving initial research at the place of choice was found in Jennie Cramer's research, as she had her students help her conduct the initial research on prairies in their area that have an endangered ecosystem (Cramer, 2008). After conducting the initial research to learn more about the problem, her students were eager to help, thus motivating them to build a relationship with the prairie owners and go to said prairies to conduct hands-on research (Cramer, 2008). When presented with a problem where they get an opportunity to go beyond the classroom walls, students become intrigued. Whether it is challenge letters or engaging students in the initial research while guiding them to examine community issues, students need to feel a part of what is being done in the classroom and in the creation of the place-based project itself for it to be effective.

Different Ways to Drive Instruction

After initially launching inquiry with students, clear objectives need to be set for students and teachers. The objectives will help students see what they are getting out of the lessons and will help remind teachers of how they are to act as guides in the learning process (Michigan Sea Grant, 1982). Goals and research questions should also be included to provide more specifics as to what students will be researching for their place-based projects (Lowenstein & Smith,

2017). Next comes the main part of any place-based project, essential to the student experience: hands-on learning experiences in the place chosen to be investigated.

As mentioned before, there are a variety of ways that educators and students can craft the hands-on experiences, some being more restricted than others. When crafting these experiences, the questions that students asked during the inquiry stage should be heavily considered (Lowenstein & Smith, 2017). This way, activities done at their designated place relate directly to what students are curious about. Focusing on students' questions also supports one of the main aspects of place-based education--the student-driven inquiry approach to teaching and learning. Even students' concerns about a specific place can drive instruction. Concern from students can serve as a motivating force to find out more from locals connected to the place or collect and test samples from an area to provide evidence that supports the concern (Lowenstein & Smith, 2017). Students can get involved with the place that they are studying in many ways. More examples of how the experiences are all guided by educators and shaped by students' curiosities will be explored in the examples section of this paper.

Sharing with the Community

After their research is done, teachers usually assist students in finding a way to culminate their research by sharing with a wider audience. For example, the Southeast Michigan Stewardship Coalition organizes a community forum each year in conjunction with educators in the classroom to give students a space to share their research findings ("Raising Voices," 2017). Here, students make presentations to share with other schools that have participated in place-based programs in the area and to community members ("Raising Voices," 2017).

Sharing their research with the community gives students an easily acquired opportunity to practice presenting to people of all ages. It also gives them a way to communicate their

findings to the people that they may impact, while explaining what the community can do to learn more about the situation. If students found a problem in the area during their research, the forum will also give them an opportunity to communicate ways that people can help and be a part of the solution to the problem ("Raising Voices," 2017). Other ways to share findings include writing city representatives or making a website to spread the research in the surrounding area. The way that the research is presented and spread really depends on the project itself and the purpose that students have for completing it.

Other Features to Consider

Some components to consider when first implementing place-based programs into schools are the consensus of what students are to get out of the program and the investment that the school will need to make to maintain the program (Blank et al., 2003). Investments may include transporting students to the place of study or finding the best professional development seminars to provide for teachers. Investments need to be carefully considered before definitively implementing place-based programs so that the efficiency of the programs themselves can be maintained in the long run. Also, having a consensus of what is to be accomplished with the program will help lead into the roles that teachers and students may need to take on to make it successful.

Roles of Educators and Students in Place-Based Education

As for roles in the place-based learning process, the overarching idea is that educators are learning guides at students' disposal while students use their curiosities to form a project, one which they are invested in completing. This is not to imply that the educator does not teach as they normally would; however, the lessons in a place-based program are more student-driven than those of regular school programs. Both educators and students have essential roles in the place-based process; students get to take ownership of a project they help create and

educators get to see how much their students evolve throughout a process driven by their own interest.

Educator Roles

Educators have interesting and important roles in the place-based process. Even though the project students will complete is largely student driven, educators still must keep them focused on the goals at hand. Roles that the educator will take on during the completion of place-based projects are guides for student learning, curriculum developer, promoter of student motivation and engagement, and relationship builder between students and the community. Place-based projects would not be as effective without educators taking on all these roles, simply because they are all essential to help students take on more responsibility during the project.

One way that educators act as a guide for students during this process is by getting them to ignite their intrinsic motivation. Intrinsic motivation is a type of motivation that comes from within the people in question and it cannot be changed by outside influences such as the educator, only promoted (Williams, 2006). Educators have the power to help students find a topic that interests them and apply it to what they need to learn based on state standards. While doing so, they would be helping students tap into their intrinsic motivation for wanting to know more about a topic they are already interested in.

Educators can form lessons and even begin new projects altogether by listening to students' questions while expressing their initial curiosity about the place to be studied. A student's simple question of how human acts can change the environment of the place to be studied can drive educators' instruction (Lowenstein & Smith, 2017). This points to another aspect of the educator's role in a place-based program. In these programs, educators must focus on enhancing key parts of the research process to keep students engaged and

challenged throughout. They will also have to make sure that through the place-based experience, state standards are being met and students are using their place to their fullest advantage. When educators figure out how to implement each part of the project so that it will be presented to students in an engaging way, students will get more out of their place-based experience in the long run.

Another large part of the educator's role in place-based education is to build relationships in the community with those who may be willing to help students learn within their designated place (Lowenstein & Smith, 2017). With this role, educators can gain access to more places in their communities and help bridge relationships between students and community members. If no one in the community is willing to assist in these programs, they cannot be conducted; so, forming foundational relationships in the community is essential to the role of the educator in place-based education.

Student Roles

Students arguably have the largest role in place-based education programs. It is with their interest in a place and their intrinsic motivation to learn more and help their communities that these programs are successfully conducted. Student roles are to ask questions, take ownership of their learning, conduct research, collaborate with their team to solve problems, be leaders in their class and share findings. The place-based process is ultimately student-driven, so students need to fill all these roles to complete a successful project.

Essential to place-based education is student interest in one theme surrounding a place or in topics of various student interests surrounding the same place. At the place of study, their curiosity causes them to ask questions about what is going on around them. When students ask questions and are intrigued about the place of study, the place-based project officially begins. This is also when students begin to take ownership during the place-based process. Having

ownership over their own project gives students a passage to self-analysis. It lets them examine the amount of effort they are putting into the process to improve their skills pertaining to the completion of their project (Edwards & Miller, 2006). Students should be granted the responsibility and flexibility to self-evaluate to make sure they are taking as much stock in the place-based process as they should. Once they are encouraged to research what interests them about a place, they will naturally take ownership over what they find and the process it takes to get there (Edwards & Miller, 2006).

In the place-based process, students also have different types of jobs that they practice and accomplish. Kathy Jacobs Maher, a science coordinator at a middle school in Georgia, cites some of the jobs that her students have been given in place-based projects over the years. She discusses how her class had class leaders for their collective project, as well as teams and students from other grade levels to assist in support of certain aspects of the project (Maher, 2000). So, a large part of students' roles is to be able to work in teams to achieve a common goal, which is often connected to a common interest among the group of students. Even when students focus on their own topic within the overarching project that the class is doing, they are still working towards contributing to their section of the project successfully. Students must also figure out a culminating way to report their findings to the communities. The educator guides them through a few options, but students ultimately decide together how to spread their information within their community. So, students must be team players and work collaboratively, but they also have opportunities to demonstrate initiative and leadership.

The main takeaway for educators to realize in the place-based research process is that they are to act as guides to help students explore their research questions and goals. In their assistance as guides during the process, they should naturally inhabit the other roles that are needed for them to help the project be a success. Educators must always think of the best ways to communicate information to students as their guides and how students' intrinsic motivation

will likely be ignited. They will also have to spend a significant amount of time explaining the responsibilities and steps of a place-based project to students if it is a first-time experience. The main takeaway for students, however, is that they will have a lot more responsibility than usual in the classroom. The many decisions and responsibilities within their roles will be new to them, but with the right guidance, students will surprise themselves with all they can accomplish if they put their all into the project.

Advantages of Place-Based Education

Place-based education has many advantages for students. Students see how the concepts they learn in the classroom can be taken into the real world. The earlier students learn this, the more they will see the positive outcomes that can come out of applying what they learn to what they care about outside of school. Advantages from place-based education are numerous and they have the power to last a lifetime for students.

Increased Student Motivation

One of the primary advantages of place-based education is increased motivation that educators see students demonstrating while completing their projects. The overall determination of students to participate in lessons in the classroom and at the place of study usually increases when students become intrinsically motivated by their topic (Williams, 2006). Intrinsic motivation helps students' overall growth because it is their innate desire to learn more about a given topic; therefore, educators should present activities that will stimulate student interest, acting as promoters of intrinsic motivation. Since most place-based projects have an embedded research process and a stage where students' inquiry is used, intrinsic motivation works to get students invested in their project.

An advantage that aligns with motivation is that students often achieve a state of flow when they complete place-based projects. Flow is a state of mind reached when people

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become heavily involved in an activity that is extremely enjoyable to them, even if they must put in a lot of work to make it happen (Williams, 2006). The idea is that they begin flowing through a project so much that it eventually does not feel like work anymore, only an enjoyable activity. This applies greatly and is an advantage of place-based education because students become heavily involved in their projects, most often because the projects benefit the community in some way. They become motivated to finish their projects because they have an end goal to solve a problem that they helped choose to research and solve. So, when they feel connected to a place or problem, students' motivation increases.

When students find what they do to be pleasurable, they want to spend more time doing said pleasurable activities, just like a game or a hobby (Williams, 2006). The theory of flow supports the idea of student-driven projects and students' desire to start and finish work that matters to them. The theory of flow and intrinsic motivation combined capture the essence of place-based education for teacher and student. The educator acts as the promoter of the place-based project while students eventually become so invested in their research that they flow through the lessons independently or with peers. When educators use methods such as this, students realize that their own ways of doing research can be tied into what the class is completing, making their attitudes towards learning improve (Fuz, 2018).

Another advantage of place-based education that aligns here is the face-to-face connection between students and those who are part of their community. Connecting students with different people within their community can be incredibly meaningful because it gives them a better idea of the many cultures of those who live in their community (Ngai & Koehn, 2010). The people that students connect with can also give them a different perspective of what is currently happening at the place they are studying, since it may be different than the perspective they previously held (Ngai & Koehn, 2010). From talking to people in their communities, students gain an enriched understanding of the environment in which they live and the problems

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surrounding their environments. Students also gain a resource since the people they speak to can provide further guidance when conducting their research. Verbal communication helps students connect to and understand concepts better. Because of this, it would be an incredibly positive tool to use for those students who find information to be clearer after a discussion rather than an assigned reading. Place-based education holds the great potential to create more civically engaged students who see the potential they hold to impact situations.

Increased Mindfulness

The idea of mindfulness is an advantage of place-based education that supports students' intellectual growth. This concept was at the center of Deringer's (2017) study as he wanted to see how mindfulness helped and connected to place-based models of learning. He concludes that mindfulness has the potential to strengthen place-based education because it challenges students' and teachers' ability to seek out new problems and be able to solve them (Deringer, 2017). Sociocognitive mindfulness, which is the type focused on in the study, represents a western approach that focuses on the drawing of distinctions between aspects of a topic of place (Deringer, 2017). The distinctions in the case of place-based education occur when students notice the qualities of the place of study that make it different than other places. Noticing these differences causes students to ask questions and identify the problems within the place in place-based education. Mindfulness gives students an opportunity to engage in critical thinking by inquiring about the aspects of their place of study (Deringer, 2017).

To further support this argument, Deringer included figure 2 in his research to show some of the ways that mindfulness and place-based education are connected. Specifically, in the middle section, readers can see that the important components found in both ideas are strengthened problem-posing skills, increased knowledge of social and environmental justice, and stronger engagement among students in their communities (Deringer, 2017). Considering these reasons, Deringer makes a strong argument that increasing mindfulness in students is a

key advantage of place-based education. Being more mindful about their studies overall will help students complete all schoolwork with greater purpose.
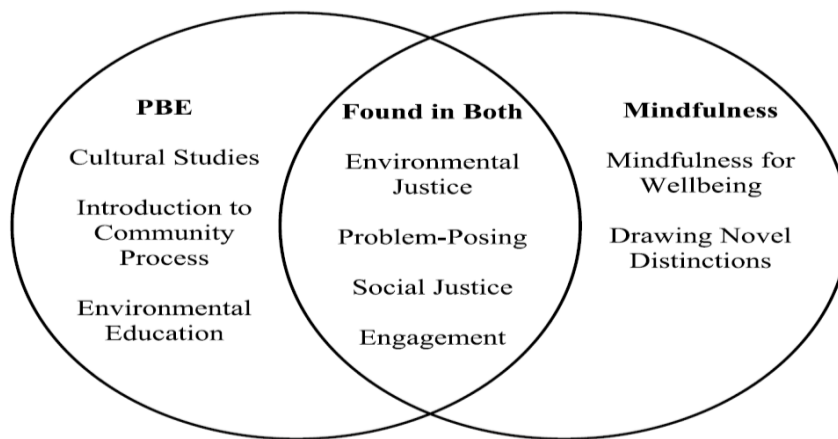

Figure 2. Comparing Place-Based Education to Mindfulness

Student Attendance and Engagement

In addition to the advantages listed above, place-based education can also increase student attendance and engagement. Studies show that when students do not connect to what they learn or when educators do not make content accessible to them to relate to, low participation rates and low attendance overall become more common among students (Edwards-Vandenhoek, 2018). The idea of making content accessible to students holds high importance because it gives them the ability needed to dissect new content and form it in a way that they understand. Educators can make content accessible to students through place-based education by making projects student-driven or letting students apply the research process and their choice of presentation to convey their findings about a topic. Framing projects as student-driven will naturally increase engagement and attendance, making content accessibility a major focus and advantage of place-based education. In fact, students look forward to coming to school when they have a project that is clearly connecting to their communities and bringing meaning to curriculum content (Edwards-Vandenhoek, 2018).

Student engagement is imperative to students successfully retaining information, especially in a meaningful way. Students often find place-based education to be more engaging because they see that their efforts go into fixing social and environmental problems within their community (Lowenstein & Smith, 2017). Students want to see that what they are learning matters, so when they realize that place-based projects have a purpose outside their school, they start to see purpose in education and purpose in themselves (Lowenstein & Smith, 2017). Considering this, place-based education puts students right in the middle of the innerworkings of their community. By completing projects that help their community, students will witness the impact peoples' jobs have on communities. Moreover, they will see how many of those jobs it takes to keep a community running and how the people that carry them out do so effectively.

Civic Engagement

Through the projects they complete, students see how much community involvement matters firsthand, and from that, students benefit greatly. Students even gain connections within their communities, some they may use as resources for further research or job pathways that they may one day want to go back to and investigate (Edwards-Vandenhoek, 2018). Simply framing place-based education with an emphasis on this idea could encourage more school administrators to give it a try because it focuses the attention on the impact it can truly have on student lives. Place-based learning pulls students together to learn how to make change, something positive for students and an obvious advantage of why place-based education needs to be more highly considered.

Dr. Doris Terry Williams, a founding advisor from the Great Lakes Stewardship Initiative, was interviewed in 2014 about her stance on place-based education and its importance. When asked why it is important to connect learning to place, Dr. Williams responded, "When kids are engaged in the work of their communities, they develop a stronger sense of place and have a greater desire to either stay in their communities or come back to their communities once they

have gone away to school and developed some skills" (Ignaczak, 2014). So, if educators assist students in completing projects to learn more about the place in which they come from, those students could potentially want to help solve more community problems as they grow up. It gives them a greater ability to take charge and look deep into social and environmental issues when they are older if they learn how to do so effectively as young students.

Multidisciplinary Learning in Place-Based Education

The multidisciplinary approach used in place-based education presents yet another advantage of the method. Multidisciplinary learning is incredibly impactful for students because it exposes them to multiple subjects at a time. In many schools, not enough time is allocated for science and social studies, the two overarching subjects that most place-based projects encompass. Because of this, place-based education presents a worthwhile opportunity for students to gain more exposure to these subjects and see how subjects are connected. For example, students could be completing a project that involves both studying their community culture and presenting their findings in a written format, tying together social studies and writing skills.

Even broader skills can be explored and aligned to main subjects through the multidisciplinary approach often used in place-based education; these skills include visual literacy, entrepreneurial skills, and communication (Edwards-Vandenhoek, 2018). Since life itself is often multidisciplinary, place-based education prepares students for the type of work and problem solving they will do in the real world.

Critical Thinking and Problem Solving

Including multiple subject requirements in place-based education will help aid another advantage to the method, which focuses on challenging students' critical thinking skills. Place-based education challenges student views on the world and the environment if projects are

conducted meaningfully. To do this in a local environmental and cultural context, educators can use the innerworkings of the community--people who work to fix or spread awareness of local problems daily, to help educate their students. They can take their students to the people that preserve local places and history so that discussion can be had that challenge students to think outside the box, on a broader scale beyond themselves (Ngai & Koehn, 2010). This presents another way that students can become more passionate about what they learn, and why increased critical thinking stands as an essential element of place-based education. Students can learn to identify more of the aspects of their local environments and local cultures by challenging what they already know and assimilating new ideas about the community in which they live (Ngai & Koehn, 2010). So, if students' opinions on their immediate world are challenged, think of how they will then view aspects of the world on a broader scale: with increased clarity and sincerity to issues.

The advantages of place-based education all tie together in some way, whether it be motivation to learn being higher and attendance more consistent or working with those in the community who can challenge critical thinking skills of students. These advantages all carry importance in students' lives and help students develop skills needed to take through life. Increases in attendance, motivation, and critical thinking skills could even help students fulfill more typical school requirements with greater success, such as testing. Considering this, place-based education can greatly improve students' academic achievement, their view of the world around them, and their view of how education can change lives.

Place-Based Organizations

For a place-based project to be successful, both educators and students need guidance. Place-based organizations supply that guidance through strategies, project ideas, and facilitation help for educators. Place-based organizations offer the assistance of formally trained place-based educators, curriculum plans, and resources for schools to use to implement and

maintain place-based education. These organizations are typically ones outside the school district, and they usually cover a whole state or region. Sometimes schools research and reach out to programs near their location for assistance, while others simply reach out to places in the community and begin building their own programs as they go. When schools engage with an established place-based organization, it can not only ensure more success with the guidance provided but can set students up with a platform on which they can share their research with a larger audience. The following organizations have partnered with schools and areas that have carried out place-based projects with students, aiding in all stages of the projects they assisted.

Marngo Program

Swineburne University, in western Australia, created the Marngo program, a place-based organization that aspires to "stimulate interest, build capacity and raise Aboriginal and Torres Strait Islander secondary students' awareness of possible study and career pathways in design and media" (Edwards-Vandenhoek, 2018). The organization offers schools intensive two-week experiences of place-based education for students, mostly targeted for high schoolers in the communities surrounding East Kimberley, Australia. The organization was created in conjunction with the indigenous people of the area, ensuring that the name of the program, the content, and the perspectives presented for the program would be meaningful and would accurately depict the indigenous communities that students live in (Edwards-Vandenhoek, 2018). 'Marngo' means 'over there' or 'in the future' in the Woiwurrung language of the Kulin Nation, near Swinburne University (Edwards-Vandenhoek, 2018). The organization seeks to spread awareness to students about the rich histories and stories of the people that make up their communities. It also helps students reflect upon how far the cultures within each community have grown, mostly by having them complete the process of creating their place-based projects.

The Marngo program uses a framework for their two-week program called the 'Eight Aboriginal Ways of Learning,' which seeks to provide educators with Aboriginal learning methods to apply to their place-based framework (Edwards-Vandenhoek, 2018). The framework consists of the following methods: incorporating personalized storytelling and narrative-driven learning, using visualized learning processes, taking students outside the school to learn, creating hands-on lessons, using symbols and images to explain, using interdisciplinary and innovative approaches, modeling for students, and connecting projects to the real world (Edwards-Vandenhoek, 2018).

The 'Eight Ways' framework gives educators an efficient work-flow process to have students follow; educators also learn efficient ways to facilitate the place-based process, pick project ideas to guide students in choosing, and find multiple ways to deliver instruction (Edwards-Vandenhoek, 2018). It also provides educators with a way to meet the needs of multiple students, presenting information in different ways and allowing them to incorporate what they know from other subjects to make topics of study more accessible to them. This framework exemplifies what place-based education should be built on, from the incorporation of the community to having students connect their projects to the real world. The framework could be easily adapted to fit the needs of many grades because of the setup it provides for implementation.

The Marngo program has developed a way to embed the 'Eight Ways' framework into a six-phase process. The six-phase process provides students with guided learning experiences (Edwards-Vandenhoek, 2018). The six phases, define, gather, play, design, make, and exhibit, help to give students and educators a clear picture of what will happen at every stage of their project (Edwards-Vandenhoek, 2018). In the define phase, students will be required to listen and question the people working at the place of study that they are going to. They begin to see the importance of the place within their community and the people that inhabit it as they start to

plan their projects. During the gather phase, students get to collect data and information outside the classroom, using any resources their place provides. Sometimes the play phase of the project becomes misconstrued by newcomers to place-based education, who think it is simply a time for students to run and play games at their place of study. The play phase is one of the most fun and beneficial phases for students because they get to engage in action research at their place of study; this means that they can interview people, do experiments if needed, etc. The design phase of the process happens when students begin generating ideas and testing those ideas on how they can be incorporated into a comprehensive presentation of their findings (Edwards-Vandenhoek, 2018).

During the make phase, students refine their projects and start producing their actual products to be shared with people in and out of school. At this point, educators should reinforce the point that students' projects should be assisting the community in some way, whether that be by spreading awareness of local history or creating a call for change. Lastly, the exhibit phase in the process grants students the opportunity to finally share their projects with an audience (Edwards-Vandenhoek, 2018).

Like the 'Eight Ways' framework, these six phases can be easily adapted or even combined at some points if the projects call for it. The methods in that framework support educators and students in each phase of the six-phase process by giving them ways of carrying out projects and working together to communicate important points about their communities. As seen in Figure 3, the 'Eight Ways' framework and the six-phase process truly are efficient methods to use to guide students through their place-based projects. They incorporate much of the hands-on learning experiences outside the classroom and community centered learning

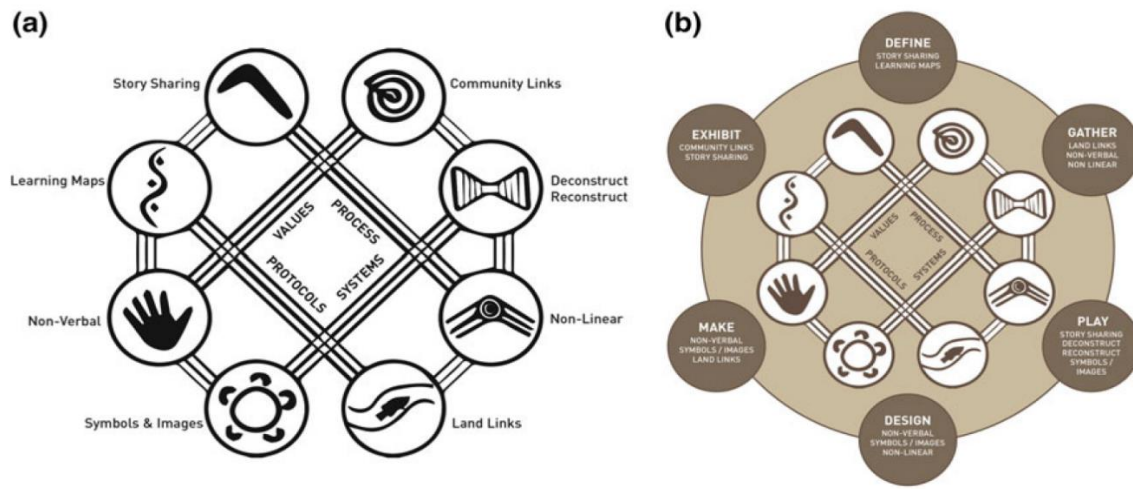approaches that are so important to place-based education.

Figure 3. The Eight Ways Framework and the Six Phases

Using this approach would give students the methods they need to play on their strengths and learn how to seek information from those in their community willing to help. A significant advantage of using an organization such as this and adapting its methods is that students are at the forefront of the process. Students must act as the designers of their own projects, going through phases that push them to utilize their prior knowledge and develop new skills such as professional communication and interpersonal skills (Edwards-Vandenhoek, 2018). Overall, the Marngo program presents great opportunities for schools to capitalize on. The organization has all the necessary beginning elements that can help students frame their projects for success. The organization has seen success and its methods have been adapted to meet the needs of the students involved, which will be expressed later in some project examples from this program.

Southeast Michigan Stewardship Coalition (SEMIS)

The Southeast Michigan Stewardship Coalition, which was founded in 2008, is one of the most recognized place-based organizations in the United States. Based out of the Great

Lakes region of Michigan, it is a professional learning network that supports teachers and community-partner organizations in using and implementing place-based approaches. The mission of the coalition focuses on helping students see the importance in protecting their place or the environment in which they come from. They partner with schools in the surrounding region that want to participate in science-based projects with their students to teach them to be stewards of their environment, protecting the ecological-social systems in which they live ("Our Mission," 2008). Protecting the thriving ecosystem that is in the Great Lakes region is of utmost importance to people in the area, which is why the coalition's assets for schools to implement place-based programs are so sought after.

The SEMIS coalition provides educators with lessons and ideas that students could use at every step of their place-based projects. It also provides funding for approved project ideas, rubrics for educators to assess their students' work, and resources for students to use in the surrounding area for their research ("Teacher Toolkit," 2008). The resources provided, including contacts in the designated community, can also be used to find an audience for students' findings, which is an essential part of the place-based process. The rubrics provided on the coalition's website stand as a beneficial asset of this organization. Even though the main goal of place-based projects is to open students up to a new way of learning, they still must be assessed to make sure they are meeting the necessary educational requirements in place for the organization. The educational resources in this organization support the point that it is sometimes better to collaborate with an already established place-based organization to help with implementation.

The SEMIS coalition gives educators much needed assistance with how to plan a place-based unit and individual place-based projects. They also give students the opportunity to participate in their community forum, an event that occurs annually where students, educators, and community members can come and listen to students' findings (Lowenstein & Smith, 2017).

The forum serves as a way for students to encourage others to dig deeper into the issues of their community that they found through their research. The forum is only one aspect of the great importance this organization has served in the community. The organization essentially brings people together to solve community issues, people of all ages with various skills. Schools that use this organization in the Southeast Michigan area are thriving because students now have a new outlook on how influential their education can be in their lives and in the lives of others ("Case Studies," 2008). This organization has provided countless grants to schools in its surrounding areas, with educators and school administrators constantly applying for more because of its impact. The coalition is a fantastic model to follow for anyone interested in creating a place-based program for school use.

Great Lakes Stewardship Initiative

The Great Lakes Stewardship Initiative is the overarching organization that includes nine regional hubs in the Great Lakes region, one of them being the Southeast Michigan Stewardship Coalition. The Great Lakes Stewardship Initiative was founded in 2007 with the goal of funding place-based studies in communities in the region that would help uncover new methods for sustaining their vast ecosystem ("Our Mission," 2007). The organization oversees the apportioning of grants, assistance, and resources allocated for its nine regional hubs. This highly regarded organization provides teachers with the knowledge they need to pass on to students regarding how to hone their skills towards helping their communities ("Our Mission," 2007). Its main goals can be characterized as promoting students' critical thinking, increasing their civic engagement and workplace skills, increasing their motivation for achievement, and helping with students social-emotional development ("Place-Based Education," 2007). With these goals in mind, the organization has fostered many successful partnerships with schools in the Great Lakes area that have supported their point that place-based education works if done properly ("Place-Based Education," 2007).

Dr. Doris Terry Williams, founding advisor of the initiative, explains how in developing the initiative, immense thought was given to how much professional development would need to be provided for educators, since place-based education is not included in many teacher-training programs around the United States (Ignaczak, 2014). The fact that the organization puts so much effort into how educators will be trained before implementation even begins speaks to how valuable they see educators in the process, since they are essential for guiding students through their research processes. Dr. Williams also points out in her interview that another main goal of the organization lies in making sure students from urban neighborhoods have relationships with their communities and environments as strong as those of students living in rural areas (Ignaczak, 2014). Overall Dr. Williams highlights many of the main goals and points as to why the Great Lakes Stewardship Initiative holds high importance, and why more states should work on creating a sustainable organization such as this. Dr. Williams ends her powerful interview by stating that she thinks the organization is "the best model in the country for a statewide place-based education effort" (Ignaczak, 2014).

CO-SEED: Community Based School Environmental Education

The Community-Based School Environmental Education group, also known as CO-SEED, was founded by David Sobel and other Antioch New England Graduate School Colleagues in 1997. Its main goal represents an opportunity to improve schools in the New England area that struggle with attendance, engagement, and testing. The organization selects schools to partner with for a three-year cycle (Swope, 2005). The group allots three years for schools to implement place-based projects with assistance because a place-based project, like any new educational endeavor, can take time to sort out and fully develop. Federal funding has been an advantage for those in the New England area who sign up for assistance from CO-SEED; recipients can use the funds for things like new resources, professional development sessions for educators, and transportation to get students to their place of study (Swope, 2005).

As previously mentioned, there are an adequate amount of professional development sessions for educators granted by the group. For the entirety of the three years that schools will participate in this group's program, a place-based educator works with the class or classes that are participating (Swope, 2005). The place-based educator has expertise regarding the places in the community that could be chosen for students to study for their projects. They also provide advice regarding how the program can be implemented and maintained. The advice extends to how to fix the aspects of the program that are not working well as students complete their projects (Swope, 2005). The group also provides the money needed for certain phases of student projects, such as money for a community event upon completion of projects for students to show what they researched. CO-SEED also allocates money for substitutes, so that educators completing a place-based project with their students can be replaced with those who know how to guide students through the process in their absence whenever needed (Swope, 2005).

Each class that participates in the CO-SEED organization has projects that look differently. Sometimes processes like the six-phase process are used, while other times new processes must be created to fit the needs of the school (Swope, 2005). Schools in the New England area have seen great success using this organization; some of the projects they have completed will be explored later in discussing examples of place-based education. One last important note regarding this flourishing organization is that when it partners with a school, only the classes that are interested participate at first; then others trickle in as they start to see the advantages of place-based education (Swope, 2005). This presents as a valued aspect of the organization because it relies on the advantages of place-based education to pull people in rather than forcing them to participate if they initially feel hesitant. This organization serves as a great example of one that has helped many schools become successful in their place-based

journeys by fixing and implementing strategies over an appropriate course of time, providing funding, support, and training for educators.

MAEOE: Maryland Association for Environmental and Outdoor Education

While place-based education is not widely practiced in Maryland, there are a variety of resources available through the Maryland Association for Environmental and Outdoor Education. This organization is especially important for those who are interested in teaching place-based education in Maryland, or even those in surrounding states who may need some tips and implementation ideas to start a place-based program.

The organization's main goals are providing educators with professional development for environmental teaching, providing environmental literacy for students, and helping students find ways to investigate and assist in making their environment better ("Our Mission," 1999). The organizations' website features many beneficial resources where educators can go to gain tips for place-based education. Like other organizations described above, MAEOE emphasizes professional development. This holds as a strong priority of many place-based organizations today because educator knowledge of place-based education, not only in how to implement but simply what it is, must be a solid to provide a successful setup for students.

Educators are provided with the option of attending an annual conference to learn more about place-based education and the specific ways that MAEOE assists in implementing a structured place-based program at schools. They also offer various courses and trainings as well as chances to become certified in environmental education ("MAEOE Professional Development," 1999). One of the options for certification in environmental education is to participate in Project Learning Tree, which is an environmental education program that trains educators in how to use hands-on, interdisciplinary outdoor experiences as resources for higher learning opportunities for students ("Project Learning Tree," 1999).

Along with Project Learning Tree, this organization tries to work with surrounding organizations with a similar purpose to help educators improve the programs they implement. For instance, MAEOE often works with the Maryland Green Schools program to recognize school and student leaders who excel in the realm of place-based education ("Green Schools Program," 1999). MAEOE assists in creating green projects in accordance with the guidelines of the Maryland Green Schools program that also meet their overall organization guidelines for place-based projects ("Green Schools Program," 1999).

Overall, the MAEOE and other programs explained above have all the essential elements that factor into creating and maintaining a successful place-based education program. The assets that they provide to educators embarking on their place-based journey are incredibly useful, so that students begin their projects with a greater probability of getting the most out of the experience. Partnering with structured place-based organizations for students' place-based projects provides great assistance upon first attempting place-based education, as we will explore in the examples going forward.

Examples of Place-Based Education Projects

Many fascinating examples of place-based education have been used as models for other schools that want to develop their own place-based programs. The following examples are from different grade levels and show how adaptable place-based education truly can be and how educators can use it to motivate students in every grade. Some of the examples are from the place-based organizations discussed previously, which I thought were important to include so that the success of these programs is highlighted. The examples come from many parts of the country and world and are all great resources to utilize if interested in developing a place-based program or project.

Blossom Preschool and Adventures

With much excitement and enthusiasm, the wetland project was created and completed by Jeannine Palms, along with her preschool students in Ann Arbor, Michigan at Blossom Preschool and Adventures. This project is important to highlight because it proves that if educators establish a clear purpose for the project and they plan intentionally, even the youngest learners can learn how to conduct research and put it to use. For her preschoolers' benefit, Jeannine adapted what is normally a longer process into just three phases: investigation, play, and make.

First, the class identified a problem in their community. The problem arose while students were first learning about Malletts Creek, a local waterway right by their school. While learning about and visiting the creek, Jeannine and her students observed that after heavy rain, water was not properly being absorbed, so the creek itself was flooding and causing severe erosion in the area (Lowenstein & Smith, 2017). Jeannine explained to her students that planting new vegetation could help keep soil in place and stop erosion, so that was their next step. But alas, they were not able to stop the severe erosion that was occurring (Lowenstein & Smith, 2017). This is when Jeannine saw the opportunity for a more extensive study.

Since the creek where they first sighted the problem is right by their school, students got to use part of their school grounds as their place of study. After students saw that their plants could not save the land from erosion, Jeannine took the opportunity to teach them other possible solutions, including the development of wetlands. Upon learning about what a wetland is, students suggested to Jeannine that they should build one to help save the land (Lowenstein & Smith, 2017). They were motivated because they became involved in a problem right from the beginning and Jeannine fostered their inquiries by building on what they already knew.

The phases that Jeannine guided her class through during this project were investigation, collaboration with the natural areas' division, and writing to local administrators at the watershed council. During the investigation phase, students defined their purpose for why

they wanted to build a wetland. It is important to note that during this phase, it was critical for Jeannine to spark her students' inquiry by first taking them to the place of study and letting them wonder about what they saw (Lowenstein & Smith, 2017). This is important especially for young children to notice and wonder about what they see, so that educators are not feeding them too much information at once. Provoking young children's curiosity is important so their intrinsic motivation to generate questions and problem solve kicks in. During the next phase, usually characterized as play, students actively gathered information from city officials on the land they were exploring. They also began to learn how instrumental the money in the scenario would be in investing in the creation of the wetland (Lowenstein & Smith, 2017).

The next and last phase that Jeannine guided her students through was the make phase, where students were able to write about the importance of wetlands to the area and ask city officials to help them create the wetland (Lowenstein & Smith). The work of Jeannine's preschoolers continued as they got older, as they assisted with writing officials for the upkeep of the wetland. Creating the wetland led students to ask about other aspects of the environment in their area as well, including road salt running off into the creek and hurting the animals that inhabit it. The sparks of inquiry for young students to discover all that is around them was a great opportunity for Jeannine's students to "gain a sense of their own capacity to affect positive change" (Lowenstein & Smith, 2017, p. 4).

This is an outstanding example of place-based education because it truly highlights how powerful it is when students can use some of the skills they are learning in school, like writing, to benefit their community. The wetland created helped the community by eliminating a lot of the erosion that was occurring and improving the overall environment. They were able to get grants from the city to sustain the wetland and later inquire about other projects with the same officials they dealt with before (Lowenstein & Smith, 2017).

Jack Harvey Elementary School

Fourth graders at Jack Harvey Elementary School in Michigan got an incredible experience the year they participated in a place-based project where they were taught how to raise and release salmon. Students participated in a typical setup of the six-phase process, going all the way from the initial define phase to the final exhibit phase. Students became interested in the river ecology of the nearby Clinton River, and how the salmon that inhabit it impact the health of the river (Voelker, 2017). For this reason, they wanted to make sure the salmon were raised properly before releasing them into the river, so they defined how they might go about ensuring this would occur.

While gathering information on how to raise the salmon, students and educator Bethany Swartz participated in meetings with the Michigan Department of Natural Resources and the Clinton River Watershed Council experts. Meeting with these people helped students understand how to go about the design of their project and how to make necessary changes to help the salmon as they grew (Voelker, 2017). This presents as a great example of how students went from the gather phase to the play phase, collecting information from secondary sources first and proceeding to actively develop more knowledge regarding the topic by meeting with experts.

While raising the salmon in fish tanks in their school, students also gathered information about the fish life cycle and how fish health can greatly improve the ecosystem of rivers. They also used the place of study, the Clinton River, to observe and gather facts about conditions of the river that might impact the salmons' health when reintroduced into the river (Voelker, 2017). Students were able to raise the salmon in their school because of a grant proposal submitted and obtained by Ms. Swartz. Students presented their success at the Southeast Michigan Stewardship Coalition's annual community forum. They were able to share their success of raising and releasing salmon into the Clinton River, as well as how the salmon's healthy upbringing would benefit the river overall (Voelker, 2017). The culminating moment of the

project was the students' trip to release the salmon into the river after raising them and gathering all necessary information for doing so.

This example has many powerful indicators of place-based education including collaboration with members of the community, using an inquiry approach, and presenting results to the community so people are aware of students' efforts. It also gave students more of a voice in their learning process while allowing them to see how their research in school could contribute to the greater good of their community (Voelker, 2017). The project was also interdisciplinary for students in that it had science concepts regarding river ecosystems and social studies concepts regarding how to conduct media research (Voelker, 2017). What would have made this an even stronger place-based example would have been if students could go visit the place of study more often, in this case, the Clinton River. Giving them more hands-on opportunities with the environment they were studying may have been helpful and made their research progress quicker. But, considering the powerful place-based indicators and the fact that their research did surround a specific place that they got to visit, this is still a great example of place-based education being a success.

The project that students at Jack Harvey Elementary School completed highlights how much stronger a project-based assignment can be when combined with place-based indicators. Students were able to connect more and get excited about going to the place they studied because they knew it mattered to their community. Even though project-based themes and place-based themes do not always align, they are at times a natural fit together because of how much place-based concepts strengthen the project experience for students (Halvorsen et al., 2018). As students progressed through their project, their experience was strengthened by the motivation they had to eventually release the salmon into the river. Therefore, the service students were providing to the river in their community, which is a place-based indicator, helped

students realize that what they were doing was bigger than a grade in school, making it a powerful experience at a young age.

Bradford Elementary School

Fifth and sixth grade students at Bradford Elementary School in Vermont noticed a problem in their community that they were intrigued by, which led them to work together to help solve said problem. With the guidance of the Community Based School Environmental Education organization, students took on the challenge of creating an informational brochure and map for people in the area to know the best places to hunt, fish, hike, and camp (Swope, 2005). Where they live, these activities are all a big deal, as many people participate in them. The problem was, not everyone knew the places where they could participate in these activities or where they should go. That is when fifth and sixth grade students at Bradford jumped in to help.

The setup of their place-based project had students in groups, each in charge of completing different jobs. The tasks for the different groups were interviewing landowners of the properties being examined, mapping, creating a layout for the map and brochure, describing the details of the area, and defining outdoor ethics. This step was important to students who wanted to make the rules clear to people for each piece of land so that the community could continue to flourish and be recognized for its land. Throughout the project, students could go back and forth to the respective properties that they were gathering research for as needed.

One of the great aspects of this example is the various skills that it has students practicing in their completion of the project. The life skills and academic skills combined that encompass this project are geography, mapmaking, measuring, examining animal habitats, research, examining diverse uses of the forest, observation, descriptive writing, and editing (Swope, 2005). Notice the various science, language arts, and mathematical concepts that

students focused on just to complete one map and comprehensive brochure. Their teacher guided them through all these concepts concurrently and showed them as the project progressed how the concepts tied together for the good of the project.

Two other huge concepts focused on especially for the interview group were social studies and public speaking. One student who was a part of this group notes how they had to call the town hall to find the landowners' names and how she did not even know that they had a town hall to help with such things. She also talks about how they then were tasked with calling the landowners and figuring out what was and was not allowed on their property, meaning if people could hike, fish, hunt, or camp there (Swope, 2005). For fifth and sixth grade students today, calling and talking to strangers can be a daunting task. This is more reason why aspects of this and other place-based projects are important because they push students out of their comfort zones to become more active members of their communities. One last task that everyone got to do was to go to the print shop and watch the creation of their brochure and map to see how their information and work would ultimately come together.

After the completion of this project and after other attempts at the school of working with the Community Based School Environmental Education organization, the principal reported an increase in math and reading scores overall, as well as a decrease in discipline referrals by thirty percent (Swope, 2005). He even stated that since participating in place-based projects, students were more engaged in the culture and climate of the school (Swope, 2005). This all led to the principal looking to fund future place-based projects in partnership with the assisting organization because he saw how much completing the projects motivated his students to learn and apply themselves to their education.

A professor who works with the Community Based organization, David Sobel, said in relation to the increase in math and reading scores that "you can't really teach to a test," which is what teachers and administrators need to begin to understand (Swope, 2005). He further

states that "you never know what is going to be on the test. So, what students need are problem-solving and analytical skills to help them deal with whatever they encounter in assessments" (Swope, 2005, p. 4).The point in Sobel's argument is so important and one that needs to heavily be weighed by all in the field of education. Even with all the content we can teach students, they are not going to know how to effectively approach unknown situations without the types of skills that Sobel says are much too important to ignore. So, teaching skills to students that can carry over into situations in and out of school where they will have to problem solve quickly will benefit them and give them more of an advantage over others. Even the principal states it was good to see students learning in different ways and teachers being exposed to new and innovative methods of teaching (Swope, 2005). With its newfound motivation from students and new methods for teaching, the school itself is now thriving and sought after in Vermont for its participation in a widely respected place-based program.

Hood River Middle School

Located in Oregon, Hood River Middle School has lightly been trying to implement place-based education over the past few years. Administration and educators at the school decided to begin offering place-based electives so that students could choose the project they wanted to be a part of for a whole semester. Because of their school's location, students have the opportunity of choosing such electives as mountain biking, windsurfing, and exploring the region's gorges (Zalaznick, 2020). All place-based electives at the school are tied to some type of research and have students completing activities such as mountain biking for a specific purpose.

The school offers the opportunity to take a food and conservation science course, which has students use what they learn in the classroom to solve local ecological problems (Zalaznick, 2020). This course has seen success among the middle school students at Hood River, allowing them to test ideas such as how food can grow in an environment that experiences both extreme

cold and extreme heat. Students were able to conduct their research and observations of their crops in their school's greenhouse, which served as the place of study for their class. Students' goal for the semester was to build climate batteries which would help retain heat for times when the growing crops need it, which they successfully completed (Zalaznick, 2020). This class presents a great example of how science can be adapted for place-based education.

At Hood River, educators also place a heavy focus on tying in social studies concepts to place-based classes, which is why students often study the region's culture as part of their curriculum. Students have studied Native American tribes significant to their region in the past, incorporating social studies with English language arts concepts (Zalaznick, 2020). The concepts in social studies and English language arts became intertwined because of all the resources students were tasked with reading and examining to learn about the tribes and their lives in the region. This school presents a good example of a school that is starting small with place-based education but is already making strides with the courses and projects they are offering. To start place-based education, a school does not have to dive in with all phases of the projects figured out; so, it is efficient that Hood River is starting with a few elective courses and some main courses of study to test the effects of place-based education. Furthermore, the place-based classes at Hood River Middle School offer a solution to the disconnect that secondary students have from their learning, by letting students know "we are learning things through the lens of our community" (Zalaznick, 2020).

Project #2 from the Marngo Program

This place-based project from the Marngo program is called My Story, My Place and was completed by high school students. The goal of the project was to get students in East Kimberley, Australia into their communities to research their family histories and origins. After researching, they were tasked with tying what they found about their histories directly to their present day lives by creating zines independently (Edwards-Vandenhoek, 2018). The family

history for students in this area is incredibly rich, so educators at this school saw this as a prime opportunity to collaborate with the Marngo program and try a place-based project.

In this case, the define phase had already been completed for students, since this specific project was already a concept the Marngo program had developed. But the gather phase, phase two in this process, was given heavy attention as it is when students truly got to focus on their main topic and begin to formulate the purpose for their research. Students were given a full term to gather knowledge and stories regarding their family histories, or totems (Edwards-Vandenhoek, 2018). By looking at their family's totem, students were able to define the roles their families had held in the community, personal qualities, and how they conducted relationships with each other in the past (Edwards-Vandenhoek, 2018). During the play phase of the process, students got to actively gather stories from experts on familial history in the community or from other image-processes online.

Moving into the design phase, students were provided with an eight-page template for a zine and were tasked with creating a digital collage of the information they gathered about their totem. Their zines, which are basically forms of do-it-yourself stories, photographs, and collages, had to include a day in the life of their totem (Edwards-Vandenhoek, 2018). The goal of this was to show others what a day in the life of their ancestors would have been compared to how their lives are now in the same community. Students outlined how they wanted their zines to look and what they wanted to include in them, since there are a variety of ways to present information within one. Upon the completion of outlining their zines, students moved into the make phase where they kept reaching milestones every so often to stay on track for the completion of their projects (Edwards-Vandenhoek, 2018). Lastly, students eagerly set up their zines in a display for their community to come learn and even buy their zines to raise money for the school to participate in place-based projects in the future (Edwards-Vandenhoek, 2018).

The role of the teacher in a more creatively driven place-based project is to get students to think outside the box for how to hook people with their information. This example is a great one to highlight such a concept, because of the many ways students can display information in a zine. The students also must have a creative outlook when completing a project like this, which pushes many students out of their comfort zones. The options for how to present their work is, in this project, one of the main highlights and one that should be considered for other place-based projects. The more range and freedom educators can give students during place-based projects the better.

Creative City Public Charter School

Creative City Public Charter School in Baltimore City, Maryland provides a phenomenal example to those in the area wanting to try place-based education. The school provides hands-on learning experiences for students to take part in, all in collaboration with community members who work at various places in the surrounding community (Creative City, 2017). The school services students who are in kindergarten up through fifth grade, but the school board is hoping to expand this range to eighth grade soon. Part of the overall mission of the school is to always immerse students into the world of place-based learning, providing them with various opportunities to complete different projects throughout each year of study (Creative City, 2017). At Creative City, class sizes are kept small so that students and educators can have more one-on-one time during each project to share knowledge easier and so that funding can be more easily allocated for a specific, small set of students every year.

Progressing from grade to grade at this school means that students will be challenged with increasingly rigorous phases for each project they complete every year. In kindergarten, students will get a lot of time to engage in directed play opportunities in the classroom (Creative City, 2017). This means that educators immerse themselves in everyday play scenarios with their students in center activities where they can build onto what students are inquiring about

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while playing. They then take whatever students inquire about and see how they can formulate those thoughts into place-based lessons with community members using a specific place of study (Creative City, 2017). As students get older, opportunities for inquiry gradually become more informal so that student inquiry can be more open ended, and students can begin to increase their role in the place-based process.

Since place-based education is not extremely prominent in all areas of Maryland yet, this example provides various ideas that schools can learn from to implement place-based programs of their own. Ideas such as keeping classes small and having a progression from grade to grade as to how much students become responsible for in each project speak volumes about how well planned these programs need to be and how many people need to be on board in order to see success. Place-based education does not always have to occur throughout an entire school, but Creative City provides ways to make that happen where student needs are being met academically and developmentally.

Connection to Project-Based Learning

Place-based education has a strong connection to project-based learning, which is quite similar but eliminates the use of a place in the community being at the center of the project's study. By incorporating a place in the community for students to use as a center of focus for their projects, educators are evolving project-based components and making them stronger by implementing a place-based approach. In fact, studies show that the local community "is a natural fit with project-based learning because it provides authentic connections between the school and the outside world" (Halvorsen et al., 2018). Adding a place that students research continuously expands on the principles of project-based learning, meaning projects that have been done in schools already could be reimagined as stronger, place-based projects. The following will be examples of project-based learning that already have some elements of place-based learning that show the former could easily be redeveloped into the latter.

Waiting on the World to Change

The project entitled Waiting on the World to Change is one that ties together language arts and social studies standards. It was made to be adapted to any grade, kindergarten through twelfth grade. It has students engaging in learning about the political activism and the political system in their communities (Reseigh & Kaechele, n.d.). There are several standards aligned to this project that could be used as the base for a place-based project already. For example, one standard stated for this project says that students will learn about roles of citizens in the political system as part of their research (Reseigh & Kaechele, n.d.). Instead of simply having students search this topic on the internet or in a textbook, educators could expand the project to taking students to a local community center or even city hall to interview people about the part citizens play in the political process. If there are funds allocated for the project and all families give permission, this is a simple way for educators to really push students to connect to what they are learning.

The final product that students present to people in their communities is an action plan based on the research they complete in class regarding a political problem and how to fix it (Reseigh & Kaechele, n.d.). To make this more of a place-based example, students could still go to a local community center to interview citizens about a problem they see occurring in their communities. To add onto this, educators could also reach out to political figures in the community to ask if they would be willing to come to that community center for an interview, or if students could come see the offices of a real political figure and shadow them for a day. While shadowing, students could even attend meetings to see how political issues are discussed and get solved by the people charged with finding solutions. These changes would make this project more place-centered as opposed to project-centered because it puts a place, or even two places and those who inhabit them at the center of the research acting as the main resources. Students could even go back to the community center as they find gaps in their research and re-

interview or ask to see things available to those in the community to help them understand the issues that surround them.

Since the product of the project and how the research would be done was already decided upon beginning the project, there could be more opportunities built in for student input for how they want to present their research and conduct it. Whether students are already involved in political organizations or movements, finding ways to build on what they already know, and connecting them to the work they are doing are considerations that educators can think about to meaningfully choose a place in the community that will give rise to inquiry. The project already has the potential to become a place-based endeavor, displaying the basic components of "being experiential, connecting students to the community and the content being focused on a specific location's social, political, and economic characteristics" (Martin, 2006). Since these components are already being demonstrated, educators need to investigate how they can get students into the community to gain first-hand experiences from people that they can connect to.

There's what in my water?!

This example is as interesting as it sounds in the title, because it is project-based but can be thoroughly enhanced by adding place-based components. This water research project is meant for grades nine to twelve and is a science example. The purpose of this project is to have students "identify and research harmful chemicals in their community water and propose solutions to minimize the impact of these chemicals" (Ahmed & Moorman, n.d.). Again, the structure of the original project does not allow students to go out into the community to collect information. If students could go collect water samples, observe and study the environment in which the body of water is located, or speak with people who study harmful chemicals in the water, they may get a more place-based, connected experience to how they are helping their community.

One of the standards aligned with this project states that the project should include multiple sources and narrow or broaden the inquiry when needed (Ahmed & Moorman, n.d.). By having students visit the body of water they are studying, more questions may arise that they will want to investigate, which would fall under broadening the inquiry. Also, one of the multiple sources could be the place itself, or even the people that students may speak with who handle the issue of chemicals being in the water. To speak with people who hold these types of positions, it may be beneficial for students to visit a lab as their place so that they can help to test different ways to remove contaminants from the water. This would show them that it is always important in the research process to test what your purposed plan or solution is before presenting it to others. So, with the standards already chosen, there are simply ways to adapt what is already considered a project-based assignment to be a place-based project with a heavier line of inquiry.

The products to come out of this project would be for individual students to write an essay on how harmful chemicals can be to the water, an informational product to be made by the whole class to expose the problem, or a presentation to the community about the problem and the solutions students came up with (Ahmed & Moorman, n.d.). Providing concrete samples of how the water looks, reacts when certain substances are put in it, or pictures of the environment around the water would strengthen student's argument and intrigue more people. This is because it would give them the place-based connection that was previously lacking. The project model is overall already strong, with students building background knowledge from secondary sources, videos, and podcasts to generate questions (PBL Works, 2019). But to make it as strong as a place-based education example, the sources used need to include a place or places out in the community for students to see firsthand the part of the community that they are helping.

Limitations

While place-based education has many advantages, it also has its limitations. One of the limitations that arises for some educators is defining the phases for students to complete during place-based projects. For example, the make phase in some projects is especially difficult to nail down because of the time constraints and student frustrations that surface during it (Edwards-Vandenhoek, 2018). At times, students will become frustrated in this phase because of the heavy emphasis on editing and revising, which can be tedious. It is difficult for educators sometimes to choose a specific time frame for this phase because with certain projects, it is hard to gauge how fast students will finish.

Another obstacle sometimes faced with place-based education is the fear that it will interfere with preparation for standardized testing. Some educators fear trying something new will hinder their students content knowledge for the test they are taking and that they will not have the proper strategies to use when testing (Swope, 2005). Most educators know that it is difficult to teach to a test, but their worry is that students will get too wrapped up in the experience of being at a specific place to really focus on their tasks within the project.

There is also a major lack of funding for place-based education overall, not simply in one area. One of the main problems concerning funding is that some schools, when implementing place-based education, ask for donations from families to help, which is not always a guarantee (Fuz, 2018). Even if they are lacking the funding, schools in some areas are not allowed to ask families for donations, even if they are desperate for their students to be a part of a place-based project (Fuz, 2018). If funding is not present from donations or from the district, it is difficult for a brand new and unknown type of program to be given priority.

A limitation that arises for some educators is in their way of thinking about place-based education and their lack of knowledge about the topic. A lot of educators believe field trips serve the same purpose as place-based projects do, so there is no need to change what is being done already. This is unsettling considering how studies have shown that field trips are rarely

used for true learning experiences and there is little coordination between what is taught in the classroom with what is taught on the field trip (Sweetman et al., 2018). This is one of the strongest reasons why educators need to be provided with more professional development regarding place-based education. If they knew more, it may not be as easy to make the assumptions they sometimes do by immediately categorizing place-based education as mere field trips. A lack of professional development is a huge limitation in place-based education for educators because there is just not enough of it available to support educators needs when first implementing their programs.

The Need for Professional Development and Next Steps

Professional development for educators who want to engage their students in place-based education is essential for a place-based program to thrive. Without educators acting as guides through these projects, students will not be as likely to reflect in an effective manner as to what they are learning outside the classroom and how it applies to real life (Sweetman et al., 2018). It is essential for educators to learn how to go about guiding student reflection and how to plan ways to engage students through the inquiry approach that place-based education often demands (Sweetman et al., 2018). As part of effective place-based professional development, it often benefits educators to be put in the role of the students in informal mini place-based lessons by professionals conducting the sessions. Once this is done and educators see the critical thinking needed from students and by educators in the planning stages, they may be more willing to try planning at least a unit of place-based education to start. Educators first need to develop an appreciation for the field experience and recognize them as important to students learning (Sweetman et al., 2018).

An example of an organization that gives priority to its educators getting professional development before jumping into place-based projects is the Southeast Michigan Stewardship Coalition. Every year, the coalition provides nine days of professional development sessions for

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educators that are interested in starting place-based programs at their school. The sessions include conversations with place-based educators who have already seen success with their programs and experiences where educators are put into the role of student to see what they will be expected to include as place-based practices in their classrooms (Lowenstein & Smith, 2017). More professional development opportunities in Maryland come from the Maryland Association for Environmental and Outdoor Education, which were mentioned earlier.

Two main steps should be taken next by educators who want to implement place-based educations with their classes. After conducting research and attending professional development regarding place-based education, interested educators should seek approval from their school administration and find community partnerships. Often, places in the community are eager to partner with schools so that they can share their information with students who then carry it to families. Because of this, educators must consider a few factors to choose an adequate community partner. The first consideration to be taken must be to scope out potential places in the community that students will benefit from, which is a process that students themselves should be involved in. Educators may get stuck when deciding what their students might be interested in developing a project around, so they can ask students what they would like to learn more about based on a comprehensive list (Lowenstein and Smith, 2017).

Another important consideration is to be aware of the type of partnership being formed with the place of choice. It must be clear whether the class involved and the place in the community have a reciprocal partnership where they benefit each other or simply one where they try to meet their own needs with little guidance in the field (Lowenstein & Smith, 2017). Without this clarification, frustrations may be formed on either side of the partnership because of someone not meeting the other's specified needs. Because of this consideration, educators must be prepared to explain their own teaching goals upon discussing the initial partnership with the community partner, so that everyone is aware of the processes that students will be put

through during the project. One overarching goal, such as working together to engage students in a problem in their community and generate a solution for that problem, is ideal when forming a partnership with a place in the community (Lowenstein & Smith, 2017).

Another step important for educators to take when first seeking implementation of place-based education is to explain to students what it is they will be trying. This can be confusing for students because they may have the same misconceptions as adults such as categorizing place-based education as just another field trip. It is always important to explain what students will be doing so that they feel a part of their learning process and so they can do things with educators like help them choose their place of study. Doing research and performing a deep dive into the world of place-based education is most important before implementation, and in the long run, it can help alleviate some of the limitations and challenges.

Conclusion

Place-based education gives an authentic purpose to education while giving students the opportunity to connect the outside world to classroom learning. While it has some limitations, the advantages and overall experience that students gain from place-based education are tremendous. Students see and address issues in their community while realizing their potential to make positive changes. This, in turn, increases their civic engagement and awareness about what is occurring in their communities. Place-based education also has the potential to increase interdisciplinary learning in school, which is beneficial considering the lack of time educators must meaningfully teach all subject areas. Place-based education can truly impact many aspects of a child's life and can change the way educators instruct their students.

Questions remain about how to provide place-based education programs to students consistently because of lack of funding in many areas across the country. Because of this and the lack of information regarding what a true place-based education program should look like,

programs are less likely to be implemented in schools. However, when educators do the research necessary to implement a place-based program, many limitations are solved early on, making for a much more successful experience. More studies also need to be done across the country so the method can be tested more, and people will see all the advantages it provides for students, educators, and the community.

For students alone, place-based education influences areas of their development with the positive engagement strategies it offers to them (Blank & Berg, 2006). The development of those who live in poverty can be especially enriched by place-based education, especially if their living conditions are not truly connected to their overall communities. Place-based projects teach students that their education is valuable and that they can use everything they learn in school to become leaders in their communities, even at the young age of five (Zalaznick, 2020). Students who complete place-based projects will quickly see how they can use their education as a tool to address issues in their communities.

Having schools participate in small-scale place-based projects at first just to see the many advantages of it may be the short-term solution to implementing in more schools long-term. Often, schools do not commit to long-term programs such as these because of cost alone. But, with the projects being scaled back at first, place-based education could be spread faster and implemented easier. In the short-term, schools could work out any problems with it and see if it would be right for them to do long-term.

Place based education truly is a way to get all students engaged in their education and teach them that it is important to care about the community. Without students learning how to use their voices and education in positive ways, the world will not have anyone fighting to fix the issues in communities across the country that need attention.

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