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How And Why Design Education Instructors Use Place-Based Education In Their Courses

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HOW AND WHY DESIGN EDUCATION INSTRUCTORS USE PLACE-BASED EDUCATION IN THEIR COURSES

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DEDICATION

This dissertation is dedicated to my children Carmody and Leander. Follow your passion and never give up when something is difficult.

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Completing this dissertation was a team effort. I would not have been able to make it across the finish line without my chair, committee, mentors, and family. Dr. Will Place provided me with constant guidance, support, and feedback throughout my research. Dr. Todd McCardle kept me on track with his overall academic advisement. Dr. Raymond Lauk and Dr. Ann Burns asked challenging questions that helped push my research. Dr. Carol Cirka provided me with the mentorship needed to drive my research beyond what I believed that I could originally accomplish. My wife Lindsey Flynn's love and support helped keep me grounded and focused. My parents Sue and Marty Flynn supported my educational needs as a child and beyond creating a solid foundation for learning.

ABSTRACT

Place-based education (PBE) is a pedological approach that takes learning outside of the classroom into the local community. Allowing students to not only explore their physical environments but also the history, people, and culture of a place. The purpose of this qualitative phenomenological study was to investigate the use of PBE by design education instructors in higher education. This focus on PBE in design education is significant because PBE has not been extensively examined in a design context. The results should extend knowledge about ways that local learning environments can create opportunities and experiences for design students that cannot be replicated in a classroom.

This was accomplished by capturing the lived experiences of nine design instructors from the state of Georgia, USA. Using a semi-structured interview approach interviews were conducted via zoom in Fall 2021. The focus of the questions was on PBE, course structure and perceptions of student engagement. The most striking overall finding that emerged from this study is that although many respondents did not have a formal understanding of PBE as a pedological learning strategy, they nonetheless acknowledged that there is significant value in place as a construct that can enhance learning. Participants viewed place as a critical component of design education that can both inspire and challenge students while providing variety to instructional methods.
Keywords: place-based education, experiential learning, design education, student engagement

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CHAPTER 1: HOW AND WHY DESIGN EDUCATION INSTRUCTORS USE PLACE-BASED EDUCATION IN THEIR COURSES

This study investigated the use of Place-Based Education (PBE), a pedagogical approach that takes learning outside the classroom into local environments (Knapp, 2005), by design education instructors in higher education. Educators and scholars continually try to find new ways to connect with learners in an attempt to inspire creativity and pass along knowledge more effectively. As classroom environments and the needs of students have changed, so too have instructional methods. Today's educational strategies reflect educators' understanding that each student has unique learning preferences; thus, they seek to create classroom environments and educational dynamics where "students become the creators of knowledge rather than the consumers of knowledge created by others" (Smith, 2002, p. 593).

A proven and effective strategy to create dynamic learning environments is experiential learning, often referred to as EL. EL is defined as a holistic learning model based on an integrative process where students first obtain knowledge, then perform an activity, and finally reflect on the experience (Yale University, 2019). The "concrete experience" component of EL is where a learner gains knowledge by choosing to participate in the activity (McCarthy, 2010). EL can be implemented in numerous ways, such as service-learning or role-playing; however, the key additional step in every EL activity is formal student reflection.

Scholars have been able to identify the positive effects for EL by investigating its relationship to student engagement, defined as "the time and energy students

devote to educationally-sound activities inside and outside of the classroom" (Kuh, 2003, p. 25). A substantial body of research demonstrates that EL is associated with higher levels of student engagement than more traditional approaches to learning. As understanding of EL has increased, one distinct EL strategy that has not received much attention, especially in the art and design education literature, is place-based education or PBE. EL can happen both in and outside of the classroom and can be accomplished using different pedagogical approaches. However, PBE is distinct from EL in that it must happen outside of the classroom in local environments.

PBE is defined as "quality experiences in local settings" (Knapp, 2005, p. 277). "Emphasizing hands-on, real-world learning experiences, this approach to education increases academic achievement, helps students develop stronger ties to their community, enhances students‟ appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens" (Sobel, 1994, p. 7). Given the sparse attention to PBE in the literature, there is a need for exploratory research that focuses on how and why PBE is being used, especially in the design education field. Such research can add to the understanding of the relationship between PBE and student engagement.

As student engagement has become a prominent topic of conversation within the educational community, scholars have provided further insight into its complexity (e.g., Burch et al., 2016; Coates, 2005; Kuh, 2003). Their work and others show that engagement is a multi-dimensional construct (e.g., Finn, 1989; Fredricks et al., 2004; Walker et al., 2006). Three dimensions have been identified: behavioral emotional and

cognitive. Thus, there is value in further exploration of the relationship between PBE and the three dimensions of engagement.

Problem Statement

The purpose of this research was to investigate the use of Place-Based Education (PBE), a pedagogical approach that takes learning outside the classroom into local environments, by design education instructors in higher education. Traditional learning environments rely on classroom settings. However, the importance of the location where students learn is receiving increased attention by education scholars in the 21st century as research evidence suggests that where learning takes place is associated with levels of student engagement. In response, PBE has been adopted by educators across a variety of disciplines as a strategy to enhance learning, and, in particular, has received increased interest from design educators. Therefore, this study will investigate why and how design education instructors use PBE in their courses, with a specific focus on whether instructors perceive that PBE increases student engagement, a strong predictor of learning. In addition, this study will examine how design education instructors perceive the relationship between PBE and the three dimensions of engagement that have been identified in research: behavioral, cognitive, and emotional (Fredricks, Blumenfeld, & Paris, 2004). While substantial research supports a positive association between EL more generally and student engagement (Burch et al., 2015; Coates, 2007; Kolb & Fry, 1975). Much of the past research on this topic is geared to scholars in the social sciences with limited attention given to the relationship between EL, PBE and student engagement within the field of

design education. Unfortunately, no published research examines the relationship between PBE and the dimensions of engagement within a design context.

The focus of this study on place-based education in design education is significant and should extend knowledge about ways that local learning environments can create opportunities and experiences for design students that cannot be replicated in a classroom. This proposed relationship has face validity, in that by taking students out of the classroom, it is reasonable to expect that their level of engagement in learning will increase. Therefore, this study aims to better understand this relationship through the use of a qualitative research design and the phenomenological inquiry method. The phenomenological approach will allow for the investigation of how and why design education instructors in higher education use Place-Based Education in their courses and the perceptions of participants' authentic, lived experiences in relation to how place impacts the perception of engagement (Moustakas, 1994). Data will be collected through structured participant interviews with a sample of design educators working in higher education. The findings will serve as a reference for scholars who are interested in incorporating PBE within course structures.

Purpose of the Study

The purpose of this research is to investigate how and why instructors use PBE within the field of design education. Traditional learning environments rely on classroom settings. However, the importance of the location where students learn is receiving increased attention by education scholars in the 21st century as research evidence suggests that where learning takes place is associated with levels of student

engagement, which in turn is positively associated with learning outcomes. In response, PBE has been adopted by educators across a variety of disciplines as a strategy to enhance learning, and, in particular, has received increased interest from design educators. Therefore, this study investigated how and why design education instructors use PBE, with a specific focus on whether instructors believe that PBE increases student engagement.

While the relationship between Experiential Learning (EL) and engagement has been extensively studied, much less attention has focused on place-based education, especially in the field of design education. Educators have used place as a starting point to instruct concepts in social studies, language arts, mathematics, science, and other subjects across the curriculum (Sobel, 1994). However, when scholars have studied PBE, they often focus on the relationship learners form with their local environments with little mention of how this pedagogical approach correlates to student engagement (Graham, 2007). Work within the field of art education shows how critical place-based pedagogies aim to build meaningful, empathic connections to natural and human communities. These connections with place build new emotional and physical relationships for the learner, both of which are contributing factors that influence student engagement. In addition, a critical characteristic of PBE is, “its emphasis on learning experiences that allow students to become the creators of knowledge rather than the consumers of knowledge created by others” (Smith, 2002, p. 20).

Active investment in learning and self-guided creation is an essential component of achieving the creative outcomes that are essential in the field of design education. Changes in how and where education takes place, and in particular, increased use of PBE by educators in fields such as the natural and physical sciences and environmental education means that there is a real need to investigate the outcomes of PBE. Removing students from the classroom allows them to develop a new perspective on the world around them while fostering engagement and creativity. Unfortunately, that there is little research on the role of PBE within design education.

According to Smith some scholars argue that there is no conceptual difference between PBE and the various forms of EL. However, what they fail to recognize is that while PBE can be understood as a type of EL, it is worthy of focused study as a distinct construct. PBE should be looked at separately because unlike EL, place-based learning uniquely, "adopts local environments – social, cultural, economic, political, and natural – as the context for a significant share of students' educational experiences" (Smith, 2002. p. 30). PBE allows learners to explore the world around them and use their environment as an instructional tool in ways that learning within a traditional classroom does not.

This incorporation of place can change the dynamic of the learning experience for all learners and create a less intimidating learning environment where positive and unique relationships with peer groups and instructors and can be founded (Gruenewald, 2003). When the learning context and the physical context complement

one another, it is clear that place can play a significant role in enhancing education (Dyment, 2005; Gruenewald; Knapp, 2005).

A focused investigation of place-based education within design education will extend knowledge about how local learning environments, which cannot be replicated in a classroom, are related to student engagement. An examination of this relationship is needed to better understand whether taking students out of the classroom and creating opportunities for unique experiences that are designed to excite and motivate them, has an impact on their level of engagement in learning. Unfortunately, there is little research that formally investigates this relationship generally, and in particular, no published research examines the relationship among PBE and the dimensions of engagement.

Research Questions

Using a qualitative research design and the phenomenological inquiry method, the study will explore how instructors who currently teach design education courses at the college level utilize local environments within their courses. Data will be collected through structured participant interviews with a sample of design educators working in a variety of higher education settings. These data will then be analyzed to examine the following research questions:

1. Why do design education instructors in higher education use Place-Based Education in their courses?
2. How do design education instructors in higher education use Place-Based Education in their courses?

3. What outcomes do design education instructors in higher education observe in students when they use Place-Based Education in their courses?
4. How do design education instructors in higher education describe the impact on student engagement when they use Place-Based Education in their courses?

Research Design

To investigate the use of Place-Based Education (PBE) by design education instructors in higher education, the phenomenological inquiry method was used. The phenomenological approach was used in the study because to answer the research questions, an understanding of the participants' authentic, lived experiences was needed (Moustakas, 1994). This method allowed me to develop a deeper and richer understanding of participants' experiences as designs educators and their interactions with students. The structure of design course is often project-based with assignments determined and developed by the individual instructors. Thus, the phenomenological method will allow for a greater understanding of how and why each individual who participated, used PBE in their courses.

The participants in the study consisted of nine design educators currently working in the state of Georgia USA. Data were gathered through semi-structured interviews that were "somewhat directed and phenomenological in nature" (Denzin & Lincoln, 2003, p. 73). According to Robson (1997), semi-structured interviews have set questions, but the order can be adjusted as needed based on what the interviewer

feels is appropriate at that moment in time. For example, if a participant did not use PBE in their courses the interview questions were slightly adjusted to accommodate that experience. This interview structure provided the flexibility needed to truly understand the lived experiences of individuals in relationship to the concept and phenomenon that was investigated in this study, how and why PBE was used in design courses (Creswell, 1998).

Definition of Terms

- *Experiential Learning* Theory (ELT): “the process whereby knowledge is created through the transformation of experience” (Kolb 1984, p 41.)
- *Experiential Learning* (EL): holistic learning model based on an integrative process where students first obtain knowledge, then perform an activity, and finally reflect on the experience (Yale University, 2019).
- *Active Learning*: "anything that involves students in doing things and thinking about the things they are doing" (Bonwel & Eison, 1991, p. 2).
- *Student Engagement*: “the time and energy students devote to educationally-sound activities inside and outside of the classroom” (Kuh, 2003, p. 25).
- *Design Education*: “the teaching of the history, thinking processes, purposes, and goals related to the aesthetics and function of creation of, products, systems and environments” (Zande 2017, p 18).
- *Place-based Education* (PBE): “quality experiences in local settings” (Knapp, 2005, p. 277).

Assumptions, Limitations, and Scope

In this study, it was assumed that all individuals who were sent an email invitation, and every participant in the interviews, were design instructors working in higher education. It was also assumed that during the interview process respondents answered questions truthfully and honestly to the best of their ability based on their experiences as educators. This was extremely important because the data collected in the research completely relied on the perceptions of the nine design educators from Georgia colleges and universities who were interviewed. Thus, this investigation was limited by the small number of participants, reliance on perceptual data, narrow disciplinary background of participants, and location.

The participants interviewed in the study instructed a wide range of courses, but the study did not represent every discipline within the expansive field of design. The nine participants in this phenomenological study represented a purposeful sample that achieved saturation. Since generalization was not the goal of the research, having a more limited number of participants who shared comparable characteristics was one of the advantages of the research design (Creswell & Creswell, 2018; Lichtman, 2013). It should also be noted that this study generated robust data on PBE and student engagement, but the students' perspective was not captured. When participants described engagement it this based on the instructor's perspective.

Finally, as an educator and designer who incorporates place as a critical component of my educational practice, I have developed biases that could limit this research. In addition, within qualitative research the researcher functions as the

recording instrument (Creswell & Creswell, 2018). Thus, as the recording instrument throughout the interviews, I made great efforts to not allow my passion for PBE and its relationship to student engagement to overly influence data collected as part of this study. In addition, during the interviews, accuracy was ensured by recording and then using consistent methodology to document and transcribe the data.

CHAPTER 2: REVIEW OF THE LITERATURE

This chapter presents an overview of the literature that guided this research. The findings from this study should inform educators who incorporate place-based education and other experiential learning activities within course structures. In particular, this research will add to the body of knowledge that guides scholars who currently incorporate the design process, an approach that is closely aligned to experiential learning theory, not only in art education, but in a variety of educational settings such as architecture, industrial design, and engineering. To achieve this goal, this study will investigate the use of Place-Based Education (PBE) by design education instructors in higher education.

Theoretical frameworks from Experiential Learning (EL), Place-Based Education (PBE), and Student Engagement within a Design Education context provide a conceptual basis for understanding how the incorporation of Place-Based Education (PBE), as part of a learning experience, impacts student engagement. Results will add to the larger body of knowledge in the field of art and design education and serve as a reference for educators who seek to enrich the learning environment in building course structures.

This research will explore the relationship between PBE and instructors' perceptions of student engagement. All EL practices are implemented by educators as a way to get students excited about learning, which in turn can increase student engagement. EL strategies and styles vary widely and can be incorporated into many fields of study. However, examining PBE as a particular style of EL allows for place to

become an isolated variable of the learning process to determine more about how learning outside of the classroom impacts levels of student engagement when compared to learning experiences inside the classroom.

The review of the current literature will first examine research that supports the connection between experiential learning and increased student engagement. Second, distinguish how scholars have aligned and found connections between EL and the design process, and in particular work that links the design process to student engagement. Third, explore scholarship that investigates place-based education as a distinct form of EL as well as its relationship to student engagement. The concluding section of this literature review will provide a transition to the next chapter that describes the methodology of this study.

Experiential Learning and Student Engagement

This section will provide an overview of the development of experiential learning. Experiential learning (EL) is defined as a holistic learning model based on an integrative process where students first obtain knowledge, then perform an activity, and finally reflect on the experience (Kolb, 1984). EL requires students to play an active role in the education process by allowing the integration of their own experiences into a learning objective. This contrasts with many traditional approaches that focus on the cognitive aspects of learning acquisition, manipulation, and recollection of information. The experiential approach integrates a here-and-now experience with new information (Roberts, 2003). This learning theory was developed by David Kolb,

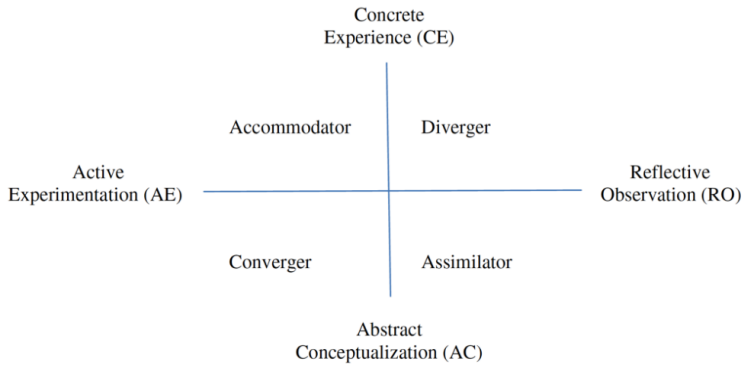
and although EL has a variety of definitions, Kolb's 1984 seminal work still serves as the guiding theoretical framework for EL scholars.

Kolb proposed a framework of experiential learning that demonstrated that effective learning requires four components: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984). He blended his influences and personal research to explore the processes of learning styles and experiential learning. Kolb's research on experiential learning theory (ELT) shows that learning is "the process whereby knowledge is created through the transformation of experience" (1984, p. 41). This research led to the development of his model: The Experiential Learning Cycle (Figure 1).

Kolb and others (e.g., Mainemelis et al., 2002; Manolis et al., 2013) state that individuals learn best when they can cycle through all four forms of learning as represented by the outside categories in Figure 1. The four phases are described below:

Figure 1

Kolb's Experiential Learning Model



(Kolb, 1984, p.76).

First Phase: **Concrete Experience**: Be openly involved and without bias in new experiences. In other words, the learner gains knowledge by choosing to participate in the activity (McCarthy, 2010).

Second Phase: Reflection: dictates that the student must be able to reflect on and observe their experiences from various points of view to approach different ways of executing an idea. The learner gains knowledge by observing others involved in an experience, reflects upon what is occurring, and applying the experience.

Third Phase: Abstract Conceptualization: whereby the learner creates concepts by integrating their reflections, observations, and experiences into logically sound theories.

Fourth Phase: Active Experimentation, the student uses these new theories to make decisions on how to solve problems. (Kolb, 1984; McCarthy, 2010; Gomez-Lanier, 2017) (Figure 1).

Kolb's model also references the individual learning style preferences of students. The inner poles refer to how one prefers to acquire and transform information (on the vertical and horizontal axes, respectively) feeding into the process on the outer ring. Extending this model further, a typology of four learning styles can be identified and suggests that individuals have a preference for one over the others (Mainemelis et al., 2002). These four learning styles are as follows:

- **The Assimilator:** grasps experience by thinking and theorizing and transforms it by watching and reflecting.

- **The Converger:** grasps by thinking and theorizing and transforms via doing and applying.
- **The Diverger:** grasps by feeling and doing and transforms by watching and reflecting.
- **The Accommodator:** grasps experience by feeling and doing and then transforms via doing and applying.

This awareness that all students have individual learning style preferences allows for Kolb's model to be used as a basis for student-centered, active contributions to the learning environment. Giving students this new role in their educational environment is described as Active Learning, which is defined as "anything that involves students in doing things and thinking about the things they are doing" (Bonwel & Eison, 1991, p. 2). Carr et al. (2015) work points out, however, that the term "active learning" is frequently described as what it is not, such as passive learning. More specifically, active learning should be described as a student-centered participatory way to learn, and as such, experiential learning approaches can support active learning. This is because, through EL, students are placed at the center of the learning process thus creating opportunities for immersive and engaging learning experiences. There is so much interest in active/experiential learning because of the beneficial outcomes for students, in particular, higher levels of engagement.

Student Engagement

Engagement of learners has attracted attention because of the work of Kuh (2003) and others (e.g., Burch et al., 2016; Joplin, 2008) in demonstrating that learning

increases when students are engaged. This section will provide an overview of student engagement and how it has evolved as a construct, including more recent work that argues that engagement is not unidimensional, but has multiple dimensions.

Student engagement can be defined as "the time and energy students devote to educationally sound activities inside and outside of the classroom, and the policies and practices those institutions use to induce students to take part in these activities" (Kuh, 2003, p. 25). Others have defined engagement as "the process whereby institutions and sector bodies make deliberate attempts to involve and empower students in the process of shaping the learning experience" (HEFCE, 2008, p.8). Scholars' understanding of the relationship between active learning and engagement has sparked interest in understanding how and why active learning environments are associated with higher levels of student engagement.

The research stream that focuses on benefits that result from active student involvement in learning has generated a great deal of attention since the early 1990s. In particular, student engagement has been a hot topic of conversation in the literature and has advanced out of the work of Alexander Astin's (1984) work that focused on student involvement. Astin further argued that engagement is largely a matter of behavior on the part of students (Astin, 1984). Later, the work of Axelson and Flick (2011) explored Astin's research. They argue that the quantity and quality of physical and psychological energy that students invest in the college experience would equal the same amount of learning.

Scholars (e.g., Coates 2007; Kuh, 2003; Krause, 2005; Marks, 2000) built on Astin's work to introduce the construct of engagement. Student engagement refers to students being actively involved in their learning assignments and activities (Marks, 2000). This advancement in thinking that moved involvement to engagement led to a reexamination of the student's role as a learner. Engagement is more than involvement or participation; rather, it requires feelings and sense-making as well as activity. As Harper and Quaye (2009) put it: "Acting without feeling engaged is just involvement or even compliance; feeling engaged without acting is dissociation" (p. 5). Student engagement is thus a reflection of student interaction and interest with the learning material. Thus, there is a consensus that it has become the instructor's role to guide these experiences.

Pundak et al. (2009) state that active learning in the classroom often results in higher student engagement and satisfaction than in traditional lecture-based classroom settings. Within a traditional lecture-based course, concepts and skills are described, thought involves one-way communication between instructor and student, and the students take a passive learning role (Kolb & Kolb, 2005). Pundack et al. (2009) compared traditional teaching approaches to "banking" in that the instructor is the bank holding all the knowledge, and the learners simply wait to receive information from the instructor. On the contrary, active learning is where the students seek knowledge under the direction of the instructor. Through the lecture-based approach, the teacher provides students with all the information needed to perform well in the class. Thus, this learning style allows students to take on a more passive role in the

learning experience and become less engaged. To achieve engagement, students must take an active role in their learning, and share the responsibility with instructors and the institution as a whole.

Perhaps not surprisingly, as students take on this active learning responsibility, questions about who is responsible for creating engagement arise. Coates (2005) points out that,

> The concept of student engagement is based on the constructivist assumption that learning is influenced by how an individual participates in educationally purposeful activities. Learning is seen as a 'joint proposition'… however, which also depends on institutions and staff providing students with the conditions, opportunities and expectations to become involved. However, individual learners are ultimately the agents in discussions of engagement (p. 26).

In an effort to further explore this construct and build on earlier work of scholars who investigated engagement as a unidimensional construct, more recent research has identified multiple dimensions of engagement. Current thinking and research suggest that student engagement is comprised of three dimensions: behavioral engagement, cognitive engagement, and emotional engagement (e.g., Finn, 1989, Fredricks, 2004; Walker et al., 2006). According to Burch et al. (2016) "students must become engaged cognitively in class, out of class, affectively, and physically in order to understand new material and to demonstrate their mastery of the new knowledge" (p.7). These dimensions have a direct relation with the way a student interacts in a learning environment and are linked to student achievement (Burch et

al., 2015). These dimensions have positive and negative poles in that a student can engage positively with one or more of the dimensions or engage negatively with one or more (Trowler, 2010). Having a better understanding of these dimensions and their relationship to how "student behaviors highly correlate with many desirable learning and personal development outcomes of college" (Axelson, & Flick, 2011, p. 40) allows educators to create engaging learning environments. Fredricks, Blumenfeld, and Paris (2004) work focused on engagement at a school level and drew on Bloom (1956) to describe the three dimensions of student engagement as follows:

1. *Behavioral engagement*

   Students who are behaviorally engaged would typically comply with behavioral norms, such as attendance and involvement, and would demonstrate the absence of disruptive or negative behavior.

2. *Emotional engagement*

   Students who engage emotionally would experience affective reactions such as interest, enjoyment, or a sense of belonging.

3. *Cognitive engagement*

   Cognitively engaged students would be invested in their learning, would seek to go beyond the requirements, and would relish challenge (p.62-63).

Research shows experiential learning is linked to the various dimensions of engagement and built on the premise that "Students reporting an intense form of engagement are highly involved with their university study … They tend to see teaching staff as approachable, and to see their learning environment as responsive,

supportive, and challenging." (Coates, 2007, p.132-133). Coates (2007) describes engagement as:

> A broad construct intended to encompass salient academic as well as certain non-academic aspects of the student experience", comprising the following:
>
> —— active and collaborative learning
>
> —— participation in challenging academic activities
>
> —— formative communication with academic staff
>
> —— involvement in enriching educational experiences
>
> —— feeling legitimated and supported by university learning communities. (p. 122)

To achieve this high engagement level, the students' direct experience with their learning environment is at the forefront, or as Burch puts it, "Experiential learning is the process of making meaning from direct experience" (2016, p. 9). Nearly fifty years ago, Hoover and Whitehead (1975) recognized that "experiential learning exists when a personally responsible participant cognitively, affectively, and behaviorally processes knowledge, skills, and/or attitudes in a learning situation characterized by a high level of active involvement" (p. 25). The collective work of these scholars establishes the importance of engagement as a desirable outcome when students experience active learning.

The Relationship Between Experiential Learnings and Engagement

Existing research shows that experiential learning is positively related to levels of student engagement (Burch et al., 2016). Engagement and Kolb's EL theory aligns

because both are student-focused, encourage active learning, require participation in challenging activities, and create opportunity for formative communication with academic staff (Coates, 2007; Kolb & Fry, 1975). As described earlier, EL is a term that refers to learning by doing (Kolb & Fry, 1975), and is further defined as authentic, student-centered, hands-on, and situated in relevant learning contexts (Kolb & Kolb, 2005). Through EL, communication is two-way between instructor and student, and between students (Van Eynde & Spencer, 1988). These aspects of EL directly relate to the research of Coates (2007) descriptions of engagement.

Coates' (2007) individual styles of engagement align with Kolb's Experiential Learning Theory (ELT) as "the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p 41.) When students participate in learning experiences that encompass or incorporate the above learning styles, student engagement is often a result. Within EL, the use of experience refers to engaging the physical body in an effort to holistically enhance the process of learning (Joplin, 2008). This relationship is grounded in the theory that argues that because experiential learning focuses on the learning process for the individual, and actively involves them in the learning process, the student therefore becomes more physically, cognitively, and emotionally engaged (Winsett et al., 2016).

In addition, the "versatile and fluid learning processes of EL usually narrow the gap between the teacher and the learner and cast the teacher more in the role of facilitator than an instructor providing opportunities for active engagement by learners" (Dineen & Collins, 2005, p. 46). Some examples of experiential learning

include service learning in order to better understand course content; fieldwork conducting research or practice at an off-campus site; community-based research in cooperation with local nonprofits to conduct studies to meet the needs of a particular community; and clinical learning (Coker et al., 2017). When students take part in these types of EL activities, research has demonstrated that they lead to engagement.

According to the National Survey of Student Engagement (NSSE), EL opportunities are designated as "high-impact" learning experiences. High-Impact Practices (HIPs) share several traits: They encourage collaboration with diverse others, demand considerable time and effort, require meaningful interactions with faculty and students, facilitate learning outside of the classroom provide frequent and substantive feedback. The founding director of NSSE, George Kuh, recommends that institutions should aspire for all students to participate in at least two HIPs over the course of their undergraduate experience—one during the first year and one in the context of their major (National Survey of Student Engagement, 2007). Kuh's work demonstrates the importance of EL to increased engagement; however, more attention is needed to understand the relationships between EL and the various dimensions of engagement.

This review of theory and research that examines EL and engagement demonstrates that while the strong and positive association between EL and engagement is well established, there is a need to look more closely at the impact of EL on each of the dimensions of engagement as current published empirical work generally reports a positive relationship between experiential learning activities and student engagement, but does not investigate whether EL activities impact the

dimensions of engagement (e.g., McCarthy, 2010, Winsett et al., 2016). Engagement therefore is a complex construct that requires a richer understanding of students' decisions about where they will devote their cognitive, emotional, and physical energies (Burch et al., 2016). This research study therefore will add knowledge to this void. From the perspective of practitioners, substantial interest in strategies that increase student engagement has led to a shared initiative to better understand its complexity as a way to raise the profile of colleges and universities worldwide and improve student learning.

As Kuh (2003) argued nearly fifteen years ago, "organizations that provide students with positive and active experiences have direct links to efforts to retain and attract students. This happens through how students individually interact with their learning environment" (p. 25). This study builds on the work of Kuh to investigate the relationship between EL and Engagement specifically within a Design Education context. Thus, the next section will explore how EL aligns with the design process both conceptually and at a practical level and provides a background on the field of design education.

Connections Between Experiential Learning and Design Education

The fields of design education and experiential learning have strong bodies of research that at times seem to be developing in parallel, but more recently scholars have begun to recognize their overlapping characteristics. As previously discussed, Experiential Learning (EL) is a holistic learning model based on an integrative process where students first obtain knowledge, then perform an activity, and finally reflect on

the experience (Yale University, 2019). The term “design “is defined by Richard Buchanan (2001) as the “human power of conceiving, planning, and making products that serve human beings in the accomplishment of their individual and collective purposes” (p. 9). Thus, design education requires “the teaching of the history, thinking processes, purposes, and goals related to the aesthetics and function of creation of, products, systems and environments” (Zande, 2017, p. 18). At a practical level, EL and the design process have many commonalities and are both grounded in well-accepted theoretical models. According to Demirbas and Demirkan, “design students in particular should learn by experiencing, reflecting, thinking and doing in the process of finding solutions to assigned design problems. Design education as such is in line with the EL theory of David Kolb (2007, p. 345)”.

Similarly, within both the design process and the EL process, the learner gains experience from concrete activities and reflects on that experience. Experience is used both to conceptualize knowledge and to understand how abstract knowledge can be applied to active experimentation (Cheung & Delavega, 2014; Kolb & Kolb, 2005). Connecting EL and the design process within an educational setting can help clarify the circular and looping opportunities of both models, and thus allow scholars to explore connections on how design education has relationships and connections to creating student engagement for learners

In practice, educators who incorporate experiential learning in their teaching are quite similar to those in design education and vice versa. Instructors of design,

similar to instructors who use EL, guide students through a learning process that requires them to be active participants.

Schon (1983) states that:

> Design teachers are coaches who are initiates (in the best case, master practitioners) in this form of life. They are insiders who know the practice – both the operational moves and the associated ways of thinking and talking. By contrast design students are novice learners who want to learn the process, but are at the start on the outside of the form of life. They do not know either the operational moves or the specific meanings of the esoteric terms of the associated design vocabularies (p. 45).

Similar to experiential learning strategies that provide students with authentic, student-centered, hands-on, and situated in relevant learning contexts (Kolb, & Kolb, 2005), design education is based on a problem-solving process of experiences, observations, and reflections. The context of this research and the data generated for this study are collected from instructors who teach design courses. Thus, exploring the relationship between EL and engagement within a design education context is an important way in which this research study will extend both knowledge and practice. Solving design problems requires designers to engage in a process that involves new ideas, thinking, planning, rejections, and a correlation of points (Eggleston, 1992). According to Findeli's (2001) research:

> The most widely-accepted (and practiced) logical structure of the design process is, therefore, the following:

1. A need, or problem, is identified: situation A;

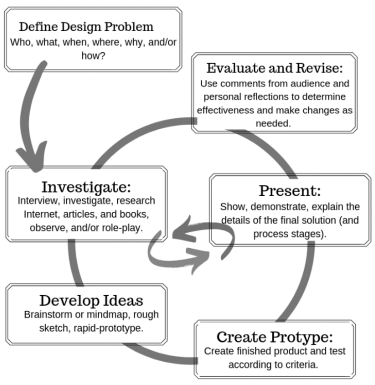
2. A final goal, or solution, is imagined and described: situation B;

3. The act of design is the causal link by which situation A is transformed into situation B. (p.9)

A prominent study by Cross et al. (1992) confirmed the validity and usefulness of using the design process by studying aspects of creativity. The process follows stages that may be used sequentially or that may require the designer/student to loop back to modify an earlier stage. Prototypical models are constructed, evaluated, and modified for solution development. A final presentation is given to the client, in the case of a designer, or to a peer, faculty, or professional audience, in the case of a student. The design process is used by numerous designers, resulting in several models to consider (Pahl et al., 2007). To expand on how to teach the design process as a fundamental component of design education Zande's (2017) model contains a six-step cycle.

Figure 2

Zande's The Design Process Model



(Zande et al., 2014, p. 21).

Step One: **Define the Problem**

Step Two: **Investigate and Research**.

Step Three: **Generate Ideas:**

Step Four: **Make the Prototype:**

Step Five: **Present:**

Step Six: **Evaluate and Revise:**

Zande's model and the design process can be defined as ''a rigorous, cyclical process of enquiry and creativity ...consisting of a series of methods that are put together to suit the nature of each design project'' (Best, 2006, p. 30). The design process thus transforms to the need of the individual designer/student and the problem being solved or investigated. Because design problems can lead to finding solutions to improve everyday life. "There is an increasing interest in experiential knowledge in art and design studies, where it has been found to be important to verify theoretical conjectures or observations" (Niedder & Reilly, 2010, p.5).

It can be difficult for designers and students to describe their design process due to variations between projects and because the process is often followed unconsciously (Bruseberg & McDonagh-Philp, 2002). This is also the case with EL as those students who often have concrete experiences but do not realize it. Fox's (2008) work examined the question: What in fact is "an experience"? Fox asks, "once the "experience" begins, how does an individual, observer, researcher, participant, or leader identify "the" experience? How is an experience demarcated from the flow of life?" (p. 39). Thus, a similarity between EL and the design process is that both can

happen naturally for the learner, but when instructors focus on models for EL and the design process as educational tools it allows students to develop a better understanding of both of these circular approaches to learning.

When comparing Zande's and Kolb's model, it can be seen that both the design process and EL focus on continuous learning. These models can serve as instructional tools for developing student centered active learning experiences. Design is a process of experimenting, of trial and reflection, of exploring and decision making. Designers play around and find their way in a series of experiments. They produce ideas and means to express these ideas and test them in a process of reflection (Van Dooren et al., 2019). In comparison to experiential learning that has been shown to promote deep learning (Bethell & Morgan, 2011; Sternberg & Zhang, 2001). Deep learning involves relating new ideas to previous knowledge and relating concepts to everyday life. Broaching the larger connection between EL and design education that has the main focus of problem-solving and coming up with an individual solution that causes students to learn by doing.

Design Education and Student Engagement

Even though there are clear similarities between EL and design education, I could not identify any research that has investigated the connections between design education and student engagement. However, scholars have recognized the need to increase student interest and engagement in the STEM subjects of science, technology, engineering, and mathematics (National Academy of Engineering and National Research Council , 2014). There is evidence that science teachers, in general, use

project-based approaches to develop and implement engineering design activities in which students follow iterative problem-solving methods known as engineering design to solve an open-ended engineering challenge (Guzey et al., 2014).

Within STEM and other fields, the design process is often integrated into learning activities, it seems, with the goal of enhancing learning. The field of engineering can serve as a reference to demonstrate how students have concrete experiences and incorporate the design process to solve problems. Engineering integration in science education can take many forms. A general principle of engineering integration is the design process in which students identify and solve problems (Brophy et al., 2008; National Academy of Engineering and National Research Council, 2019; National Research Council, 2009).

One of the most important aspects of design education and a key ability of designers is the need to recognize, define, and solve problems (Papanek, 1972). This ability and the design process can be seen as a "problem-oriented, interdisciplinary activity that deals with complex interrelationships between people and their products" (Frascara, 2002, p. 37). The design process supports the idea that there may be many possible solutions to a problem, and it promotes systems thinking and creativity. In addition, the design process is iterative, which allows students to engage in practices such as defining problems; developing and using models; planning and carrying out investigations; analyzing and interpreting data; using mathematical thinking; designing solutions, engaging in argument from evidence; and obtaining, evaluating, and communicating information (NGSS Lead States, 2013).

For example, “students design rubber band or balloon-powered vehicles following an iterative engineering design process in which they first design a prototype, experiment with the variables to discover ways to design a better prototype and redesign for the fastest vehicle possible” (Guzey et al., 2016, p. 411). According to Donald Schon’s (1983) philosophy of design ideas about teaching and learning to design follow closely from this conception of the design process. Thus, leading to the creation of modern design theory that is rooted in similar constructs to that of the social sciences and has connections to constructivism.

Already, research is becoming more prominent in the curricula of the quickly growing university-based design programs, and links between, e.g., the social sciences and design disciplines are getting stronger. Several schools are now including participatory design techniques, ethnography, and psychology into the curriculum of industrial design engineers (Stappers et al., 2007a; & Stappers et al., 2007). By incorporating more hands-on learning experiences in the classroom and beyond students become active participants in the acquisition of knowledge. Such an approach aligns with Coates’ claim that, “The concept of student engagement is based on the constructivist assumption that learning is influenced by how an individual participates in educationally purposeful activities” (2005, p. 26). There are many ways to increase how learners interact with learning and educational environments. One important strategy is to consider how place, or the location of where learning activities take place, might affect student engagement.

Place-Based Education

The relationship between EL and engagement is well established, and the techniques used in design education closely align with experiential learning strategies. Within both approaches, however, one pedological approach that has not been the subject of much research, especially within art education, is place-based education (PBE). "Place-based education is the process of using the local community and environment as a starting point to teach concepts in language arts, mathematics, social studies, science, and other subjects across the curriculum" (Sobel 1994, p. 7). In addition to Sobel's formal definition, according to Knapp (2005), *PBE may be defined* as "quality experiences in local settings" (p. 277), and more recently has attracted increased attention by education scholars in the 21st century.

The Evolution of PBE has Evolved Across Disciplines

Although the above formal definitions of PBE are relatively recent, there is evidence PBE has persisted for decades and probably originated in the work of Dewey (1938) and Carson (1962), and in later years was revived by Dillard (1974). In fact, some of the earliest examples of using place as part of the educational process can be traced back to French educators in the early 20th century who had their students gather information about their own villages and share findings with other groups of students conducting the same project (Smith, 2002).

Dewey's (1938) philosophy encouraged authentic, experiential learning and continues to thrive in today's place-based, pedagogical practices. He clarified the disconnection between what happens during a student's in-class time and what happens in real life. Often in classrooms, learning lacks authenticity and for this

reason, it is difficult for students to apply their learning. Finding ways to connect students with their learning environments is one of the primary goals of PBE with the intended outcome of more effective learning experiences. These real-world experiences are grounded in practical applications and rely on research guided by the instructor. Below is an example from Dewey's (1899) work, *The School and Society,* that exemplifies how real-world hands-on experiences can enhance learning.

> … The children are first given the raw material – the flax, the cotton plant, the wool as it comes from the back of the sheep (if we could take them to the place where the sheep are sheared, so much the better). Then a study of these materials from the standpoint of their adaptation to the uses to which they may be put…The students in one group worked thirty minutes freeing cotton fibers from the boll and seeds,…They could easily believe that one person could gin only one pound a day by hand, and could understand why their ancestors wore woolen instead of cotton clothing…(p. 20-21).

Dewey (1938) emphasized problem-solving as an instructional approach. In many instances, the same commitment can be seen in the instructional practices described by modern place-based educators (Carson, 1962; Cashman, 2016; Eijck & Roth, 2010; Knapp, 2005; Powers, 2004; Thornton et al., 2021). At the same time, Dewey's effort to discuss a particular brand of student engagement provided context for another critical component of his educational thinking, namely, the significance of first-hand experiential learning within local environments. This emphasis on the local community is a critical component of PBE.

Gruenewald and Smith's (2008) later work, *Place-Based Education in the Global Age,* stated that "…all education prior to the common school was place-based" (p. 37). This statement appears to also be based on the work of educational pragmatists such as John Dewey and William Heard Kilpatrick in the early 20th century. Dewey and Kilpatrick spoke on the "importance of incorporating students' experiences of particular communities and places into their formal education, but the tendency toward centralization and standardization in the broader society marginalized their perspective and the practices they advocated" (Gruenewald & Smith, 2008, p. 28).

This exploration of local spaces as an essential component of learning has created a strong bond between PBE and environmental education because one of the main goals of PBE is exploring one's own environment. According to Powers (2004), PBE has developed out of environmental education over the past thirty years and has built partnerships between schools and the community. The role of the local community in education, as proximal to the classroom, has been beneficial since learners do not need to travel more than limited distance. Thus, using the local community allows for the creation of new learning experiences outside of the classroom as a way to build new connections between learning materials, students, and instructors.

In more recent years, PBE has been linked to the sciences due to its relationship with constructivism (Bethell & Morgan, 2011; Seawright, 2014; Stappers et al., 2007). Constructivism is a principal learning theory in current science education, with an emphasis on the importance of connecting learning with prior knowledge and

experience and on authentic problem-solving in real situations (Gruenewald, 2003). This focus on problem solving showcases connections among constructivism, PBE, EL and the design process.

The Kolb EL model views learning as a result of concrete experience, reflection, abstract conceptualization and active experimentation. Constructivism views building on prior knowledge and experience as the foundation of new learning. The design process is directly linked to creative problem-solving and finding multiple solutions to a problem. Adding the additional layer of place as an element linked to the learning experience allows students to create connections via their interface with the world around them. In this way PBE is a distinct form of EL, it is situated learning, interacting with the environment, both natural and cultural (Brown, Collins & Duguid, 1989).

PBE as a Distinct Form of EL

Although PBE falls under the EL umbrella, PBE is still its own formalized and named pedagogical approach to learning (Sobel, 2004). Kolb argues that EL can happen both in and outside of the classroom and can be accomplished using different pedagogical approaches. However, PBE must happen outside of the classroom. When place provides the context for learning, it is largely student-centered and can be enhanced by the local community environment. The work of Duffin (2006) remarked that "…place-based education is such an open and flexible proto-theory of education that it flows into a million different connections to other theories of education and society" (p. 24.). Although PBE is characteristically experiential, and the nature of the learner must be appreciated, PBE should be looked at separately because, unlike EL,

place-based learning uniquely, “adopts local environments – social, cultural, economic, political, and natural – as the context for a significant share of students’ educational experiences” (Smith, 2002. p. 30). These connections with place build new emotional and physical relationships for the learner in a way that is distinct to PBE. Whereas traditional EL is not as likely to build such relationships. As Smith (2002) argues, the “critical characteristic of place-based education is its emphasis on learning experiences that allow students to become the creators of knowledge rather than the consumers of knowledge created by others” (p. 593).

Thus, PBE allows learners to explore the world around them and use their local environment as an instructional tool in ways that learning within a traditional classroom does not. Moving learning activities into the local community and environment as a starting point to teach concepts in mathematics, language arts, science, social studies, and other subjects across the curriculum are some of the ways that Sobel (1994) claims that PBE can be implemented. PBE is a broad construct and can take form as field trips, visits to community establishments, the library, or other green spaces such as gardens. Other scholars posit that the flexibility of PBE enables the strategy to be easily incorporated in social science and language arts (Dyment, 2005; Gruenewald, 2003; Knapp, 2005; Semken et al., 2017). Powerful learning spaces that enhance the benefits of experiential learning can be accomplished through place-based education. In fact, it can be argued that any experiential learning experience that takes place outside a traditional classroom is place-based. Activities such as service learning, internships, cultural studies, nature studies, real-world problem-

solving, and induction into community activities are commonly described as experiential learning – and they are. When design students create projects in locations other than the studio or classroom they are engaging in experiential learning. All of these learners share place as a key distinguishing element, and the experience of learning that takes place outside the classroom – PBE - is distinct from what happens inside a classroom.

The flexibility of PBE allows for the integration of this experiential educational approach as a way to increase student engagement across disciplines.

PBE and Student Engagement

One of the main goals of this research is to investigate how the location of where students learn impacts student engagement within the field of design education. In the past sections, EL was explored as an active learning style that is positively associated with student engagement. Many educators today see and share the same value in thought process as Dewey about Hands-on Learning. Ruiz and Verde (2013) shows how hands-on activities can motivate and engage students in a way that can break down traditional barriers between students and instructors and create a positive learning environment.

Regardless of the vessel place-based educational practices take on, it can transform to fit individual and particular places. Such flexibility creates new opportunities for scholars to further explore location of learning as a factor that enhances student engagement. Research conducted by Allen and Young (1997) comments on the value of participating in firsthand experiences as follows:" …

especially when all five senses—sight, smell, hearing, taste, and touch—are engaged…This engagement gives students a much deeper understanding and appreciation of the culture and environment in which they are immersed" (p.47). This immersion in local environments is a critical component of PBE.

Adoption of PBE in fields such as environmental education supports research findings that link "active and collaborative learning, participation in challenging academic activities, formative communication with academic staff, involvement in enriching educational experiences" (Coates, 2007, p.122). These outcomes are directly linked to student engagement and PBE. In addition, Smith (2002) specifically suggests that "By locating learning in the lives and concerns of students and their communities, place-based education takes advantage of students' natural interest in the world and their desire to be valued by others" (p.31). Thus, to achieve engagement, students must take an active role in their learning, and share the responsibility with instructors and the institution as a whole. PBE is a student-centered experiential learning approach that gives the students more responsibility and control over the learning process than classroom-based approaches. As such, PBE should be associated with increased student engagement.

When projects immerse learners in their local community, they incorporate the *familiar* into the educative process and greater engagement is the result (Smith, 2002). Smith's (2002) work suggests the following: "By locating learning in the lives and concerns of students and their communities, place-based education takes advantage of students' natural interest in the world and their desire to be valued by others" (p.

30). Smith's concern for the "natural interests" of the student suggested an affinity for the nature of the learner and his or her present understandings of the world. PBE has played a role in various fields of study, often looking at natural landscapes and environments as a starting point.

Thus, research suggests that both experiential and active learning can be enhanced by the location where the education process takes place. This incorporation of place can change the dynamic of the learning experience for all learners and create a less hostile learning atmosphere where positive and unique connections with peer groups and instructors can be established (Gruenewald, 2003).

Place-based learning sets the learning context and the physical context to complement one another. This relationship is directly linked to the outcomes of PBE and helps connect the learning pedagogy to engagement and how experience plays a role in enhancing education when place provides the context for learning. (Dentzau, 2013; Dyment, 2005; Gruenewald, 2003; Knapp, 2005).

Having experiences within local environments allows students to develop greater connections with learning materials and can lead to productive engagement. According to Kuh, "engagement is an important means by which students develop feelings about their peers, professors, and institutions that give them a sense of connectedness, affiliation, and belonging, while simultaneously offering rich opportunities for learning and development (2009, p.684). Within a new place or educational setting, the opportunity to interact with peers, staff and learning materials can be enhanced and lead to the creation of positive emotional connections to

learning. These positive emotions such as joy may increase engagement and foster creative learning strategies, while negative emotions such as boredom may have an opposite effect, dampening engagement and promoting superficial cognitive processing (Pekrun, 2006).

While there is clear evidence that PBE provides benefits for students and teachers in terms of attitude and motivation, the focus of this study is to explore why design education instructors use PBE in their courses and to uncover their observations and attitudes about how the location of where students learn impacts student engagement. Existing research confirms the positive association between EL and student engagement; however, from a design education perspective, it is important to better understand the effect that a PBE strategy has on that relationship. The literature reviewed above provides persuasive evidence that not only is PBE a distinct type of EL, but when used by educators to enrich the learning environment, it not only has a direct positive impact on engagement, but it strengthens the overall positive relationship between EL and engagement. Design educators will benefit from understanding these proposed relationships as they work to enhance the learning experience for students. Work within the field of art education shows how critical place-based pedagogies aim to build meaningful, empathic connections to natural and human communities. These connections with place build new emotional and physical relationships for the learner, both of which are contributing factors that positively influence student engagement.

CHAPTER 3: METHODOLOGY

Purpose of the Study

The purpose of this research investigated how and why instructors use PBE within the field of design education. As discussed earlier in this paper, traditional learning environments rely on classroom settings. However, the importance of the location where students learn is receiving increased attention by education scholars in the 21st century as research evidence suggests that where learning takes place is associated with levels of student engagement, which in turn is positively associated with learning outcomes. In response, PBE has been adopted by educators across a variety of disciplines as a strategy to enhance learning, and, in particular, has received increased interest from design educators. Therefore, this study investigated how and why design education instructors use PBE, with a specific focus on whether instructors believe that PBE increases student engagement.

While the relationship between Experiential Learning (EL) and engagement has been extensively studied, much less attention has focused on place-based education, especially in the field of design education. Educators have used place as a starting point to instruct concepts in social studies, language arts, mathematics, science, and other subjects across the curriculum (Sobel, 1994). However, when scholars have studied PBE, they often focus on the relationship learners form with their local environments with little mention of how this pedagogical approach correlates to student engagement (Graham, 2007). Work within the field of art education shows how critical place-based pedagogies aim to build meaningful, empathic connections to

natural and human communities. These connections with place build new emotional and physical relationships for the learner, both of which are contributing factors that influence student engagement. In addition, a critical characteristic of PBE is, “its emphasis on learning experiences that allow students to become the creators of knowledge rather than the consumers of knowledge created by others” (Smith, 2002, p. 20).

Active investment in learning and self-guided creation is an essential component of achieving the creative outcomes that are essential in the field of design education. Changes in how and where education takes place, and in particular, increased use of PBE by educators in fields such as the natural and physical sciences and environmental education means that there is a real need to investigate the outcomes of PBE. Removing students from the classroom allows them to develop a new perspective on the world around them while fostering engagement and creativity. Unfortunately, that there is little research on the role of PBE within design education.

Some scholars argue that there is no conceptual difference between PBE and the various forms of EL. However, what they fail to recognize is that while PBE can be understood as a type of EL, it is worthy of focused study as a distinct construct. PBE should be looked at separately because unlike EL, place-based learning uniquely, “adopts local environments – social, cultural, economic, political, and natural – as the context for a significant share of students’ educational experiences” (Smith, 2002. p. 30). PBE allows learners to explore the world around them and use their environment as an instructional tool in ways that learning within a traditional classroom does not.

This incorporation of place can change the dynamic of the learning experience for all learners and create a less intimidating learning environment where positive and unique relationships with peer groups and instructors and can be founded (Gruenewald, 2003). When the learning context and the physical context complement one another, it is clear that place can play a significant role in enhancing education (Dyment, 2005; Gruenewald; Knapp, 2005).

A focused investigation of place-based education within design education will extend knowledge about how local learning environments, which cannot be replicated in a classroom, are related to student engagement. An examination of this relationship is needed to better understand whether taking students out of the classroom and creating opportunities for unique experiences that are designed to excite and motivate them, has an impact on their level of engagement in learning. Unfortunately, there is little research that formally investigates this relationship generally, and in particular, no published research examines the relationship among PBE and the dimensions of engagement.

Research Questions

1. Why do design education instructors in higher education use Place-Based Education in their courses?
2. How do design education instructors in higher education use Place-Based Education in their courses?

3. What outcomes do design education instructors in higher education observe in students when they use Place-Based Education in their courses?
4. How do design education instructors in higher education describe the impact on student engagement when they use Place-Based Education in their courses?

Epistemology and Theoretical Perspective

This study used a qualitative research design and the phenomenological inquiry method. The phenomenological approach allowed for a deeper and richer investigation of how and why design education instructors in higher education use Place-Based Education in their courses. This approach also enabled collection of data about perceptions of participants' authentic, lived experiences of individuals in relation to how place impacts perceptions of student engagement (Creswell, 1998, Moustakas, 1994). Data were collected through structured participant interviews with a sample of design educators working in higher education. This structure allowed for participants to, "reconstruct their experience within the context of their lives" (Seidman, 2006, p. 15).

The use of the qualitative phenomenological approach for this study was the ideal method for analyzing the way design instructors structure their courses and interact with students. It allowed for the collection of data based on the instructor perspective aligning with work of Creswell and Creswell's (2018) work that said, "the goal of the research is to rely as much as possible on the participants' views of the

situation being studied" (p. 8). The study furthered aligns with phenomenological qualitative research because the data generated was collected through the perceptions of participants' subjective everyday experiences. In sum, a qualitative phenomenological approach is the best possible way for data to be gathered that enables analysis that derives from the interpretation of meaning through description and explanation (Kvale & Brinkman, 2009; Rubin & Rubin, 2012; Seidman, 2013; Van Manen, 1990; Willis, 2001). This method contrasts with the quantitative approach that Sullivan (2006) argues "has little chance of accounting for ends as complex as learning and teaching, let alone advance our knowledge of constructs such as imagination or visual cognition" (p. 22).

Sample Selection

For this study, the proposed sample was 6 to 12 design education instructors working in higher education within the state of Georgia, USA. Often within phenomenological research, it is normal to collect comprehensive data for each individual experience; thus, the sample can be relevantly small because the goal is not to measure specific variables (Creswell, 1998). Research has shown that a minimum of six participants, can provide a rich narrative and result in saturation (Guest, Bunce, & Johnson, 2006). The sampling process for this study was both purposeful and convenient. According to Robson (1997), "the principle of selection in purposive sampling is the researcher's judgment as to the typicality or interest. A sample is built which enables the researcher to satisfy her specific needs in a project" (p. 265). This

was accomplished by reviewing the websites from all 52 four-year public and private colleges and universities in Georgia to identify instructors whose teaching responsibilities are art and design courses.

The identified full-time instructors were contacted via e-mail and asked to participate in the study. E-mail addresses were obtained through public information available on institutional websites. A sample of higher education instructors drawn from Georgia's colleges and universities allowed for the commonality that all the instructors share GA residence. This purposeful sample also attempted to target all five distinct geographical regions of GA: Piedmont, Appalachian Plateau, Coastal Plain, Valley and Ridge and Blue Ridge. These methods of sample selection included instructor experiences in a variety of learning environments.

Role of the Researcher / Positionality

Currently, I am a design education instructor in higher education based in the Coastal Plain region of Georgia. This region has provided me with unique local environments that I have incorporated directly into my courses. My interest in place as a critical construct of education is driven by my own experiences as a learner, educator, and designer and has allowed be to investigate locations across the USA and abroad.

The use of place as a construct for creation was first instilled in me as an undergraduate student when my instructor designed a project that required students to create a site-specific work of art as part of a sculpture course. Site-specific works are created to exist in a certain place and can involve the use of materials generated from

the location and beyond. This style of creation was something that fascinated me and has evolved through my professional practice to include the creation of place-based works ranging from ephemeral to permanent.

As an educator, my formal interest in the pedagogical approach of Place-Based Education was established during a leadership role in eastern Kentucky. I was challenged to build a new fine arts program at a community college. This goal was accomplished by offering new courses and connecting with the community. These strategies led to increased enrollment in the new program. The foundational principle that guided every decision in building this new program was a proactive effort to better understand the community I served. The result was an art program that engaged the community both as students at the college and enthusiastic participants in non-credit workshops and events. This exploration and discovery of place led me directly to this study and ongoing research that drives me today.

When designing place-based projects for my students, I guide the learning in a way that puts students in control of the creative and design process. I have discovered over the years that this strategy of incorporating place as a component of design education often leads to greater levels of student engagement and, in return, higher academic achievement. Place-Based Education uniquely adapts to individual learning environments; thus, the goal of this phenomenological study is to explore how other instructors utilize their own local environments within their courses. Focusing on educators within the boundaries of Georgia through rich discussions about their lived

experiences helped develop a deeper understanding of the impact of Place-Based Education.

Research Design

- Participants in this study consisted of design education instructors working in higher education who are currently working in the state of Georgia, USA. Interviews with participants were conducted through internet-based video conferencing. The interview focused on place-based education learning experiences and perceptions of student engagement. The length of the interviews was roughly one hour and included a series of semi-scripted, open-ended questions.
- All participants were required to give informed consent by reading the consent cover text that was sent to participants in advance of the interview. In addition, personal information was kept confidential through the use of pseudonyms and the redaction of any distinguishing information such as gender.
- Interviews were conducted via zoom and recorded. Upon completion, they were transcribed and reviewed to create an accurate sense of the participant and their responses. Participants were also asked to share relevant written documentation that pertains to the study such as course descriptions, syllabi, project briefs, and examples of past projects.

Interview Questions

1. What do you consider your areas of expertise within the art and design field?

2. How long have you been a design educator?
3. What courses have you recently instructed at the College and University Level?
4. How do you structure your learning environments? Can you describe your approach to structuring the learning environment in your courses?
5. Please describe what you observe when your students are engaged in learning?
6. Please describe a recent project or learning experience that your students completed and that engaged them?
7. Please describe what you observe when your students are not engaged in learning?
8. Please describe a recent project or learning experience that your students completed and did not engage them?
9. What relationship if any do you perceive between the location where students learn and their level of engagement? Can you explain further and provide an example?
10. To what extent do you currently assign projects to your students that take the learning experiences outside of the classroom in ways that enable students to explore their local environments?
11. When you hear the term place-based education, what do you think it means?

12. To what extent have you incorporated place as an aspect of a learning experience or project over the last 5 years?
13. Please explain why you have/have not incorporated place in the courses you teach?
14. How do you incorporate place (for those who do)?
15. Can you describe how your use of place in designing learning experiences has evolved?
16. Can you describe what you observe in students when you use place in the design of learning experiences (for those who do)?
17. How comfortable would you be in sharing some examples of relevant written documentation that pertains to the study such as: course descriptions, syllabi, project briefs, and examples of past projects?

Data Analysis Procedure

Data for this study were generated through participant interviews and a phenomenological analysis of the lived experience of those participants. The nine respondents were interviewed during the months of September, October and November 2021 using the Zoom platform, and each interview was recorded and transcribed. The data analysis procedure was organized in phases, each of which is described next.

Phase 1 of the coding process began by extracting the verbatim/transcribed answers of each respondent to each interview question and organizing the content into an Excel spreadsheet so that all data were consolidated in one document. The

spreadsheet allowed for a careful review of all the data in one place at the same time, as opposed to reviewing individual participant transcripts. Therefore, this process allowed for a detailed review of the data after it was transcribed, but to also visualize and more easily compare responses of the various participants across and within interview questions.

Phase 2 of the data analysis involved the development of themes and coding variables based on a careful review of respondents' answers to each of the structured interview questions. Four broad themes emerged from this review and helped to organize the data for further analysis: Demographics, Factors that Increase Student Engagement, Factors that Decrease Student Engagement and Place-Based Education. Within these thematic categories, 16 coding variables were established as a framework for detailed data analysis. Following principles of phenomenological analysis, after reviewing all responses in the main visualization, the content of interviewee responses could be organized using the thematic framework and corresponding codes described above.

CHAPTER 4: DATA ANALYSIS AND RESULTS

This chapter presents the data analysis and results of the study. The purpose of this research was to investigate the use of Place-Based Education (PBE), a pedagogical approach used by design educators in higher education. PBE takes learning outside the classroom into local environments in contrast to more traditional classroom-based learning environments. Further investigation of PBE matters because the importance of the location where students learn is receiving increased attention by education scholars in the 21st century; specifically, research evidence suggests that where learning takes place is associated with levels of student engagement. (Burch et al., 2015; Coates, 2007; Kolb & Fry, 1975).

This focus on place-based education is also significant because it should extend knowledge about ways that local learning environments can create opportunities and experiences for design students that cannot be replicated in a classroom. Therefore, this study aimed to better understand how PBE creates innovative learning opportunities and positively affects student engagement through the use of a qualitative research design and the phenomenological inquiry method. The phenomenological approach will allow for the investigation of how and why design education instructors in higher education use Place-Based Education in their courses and the perceptions of participants' authentic, lived experiences in relation to how place impacts perceptions of engagement (Moustakas, 1994). Data were collected through structured participant interviews with a sample of design educators working in a variety of higher education settings.

This data was then analyzed to examine the following research questions:

1. Why do design education instructors in higher education use Place-Based Education in their courses?
2. How do design education instructors in higher education use Place-Based Education in their courses?
3. What outcomes do design education instructors in higher education observe in students when they use Place-Based Education in their courses?
4. How do design education instructors in higher education describe the impact on student engagement when they use Place-Based Education in their courses?

Descriptive Findings

Nine design education instructors working in higher education within the state of Georgia, USA, participated in this study. To obtain this sample, the websites of all 52 four-year public and private colleges and universities in Georgia were reviewed to identify instructors with teaching responsibilities for art and design courses. A list of 52 educators was established and individuals were contacted in the Fall of 2021 via an email soliciting voluntary participation in a Zoom interview. This purposeful sample also attempted to target instructors in all five distinct geographical regions of Georgia: Piedmont, Appalachian Plateau, Coastal Plain, Valley and Ridge and Blue Ridge. Attached to the email was an interactive scheduling calendar that allowed participants to arrange for the one-hour video interview.

Nine educators responded to the invitation and agreed to be interviewed using the Zoom platform. This result represents a 17% response rate. All nine respondents came from the Piedmont and Coastal Plain regions of Georgia. Participation was roughly half-and-half between the two regions. Gender was not used as an identifying characteristic to further protect the identity of the participants of the study. When quotations from interviews are referenced, the participant will be referred to by their geographical region and a number, e.g., Coastal Plains #3, Piedmont #1.

Prior to the interviews, participants were sent a consent cover letter to review before the start of the interview. The cover letter explained that by participating in the Zoom interview, they agreed that they (1) are at least 18 years of age; (2) have read and understand the information that described the study in the cover letter; and (3) voluntarily agree to participate in this study. Participants reacted positively to this process which insured informed consent, helped set a positive tone for their experience, and assured them that the information they provided would be safeguarded and stored in a manner that was confidential and maintained their anonymity.

Data Analysis Procedure

Data for this study were generated through participant interviews and a phenomenological analysis of the lived experience of those participants. The nine respondents were interviewed during the months of September, October and November 2021 using the Zoom platform, and each interview was recorded and

transcribed. The data analysis procedure was organized in phases, each of which is described next.

Phase 1 of the coding process began by extracting the verbatim/transcribed answers of each respondent to each interview question and organizing the content into an Excel spreadsheet so that all data were consolidated in one document. The spreadsheet allowed for a careful review of all the data in one place at the same time, as opposed to reviewing individual participant transcripts. Therefore, this process allowed for a detailed review of the data after it was transcribed, but to also visualize and more easily compare responses of the various participants across and within interview questions.

Phase 2 of the data analysis involved the development of themes and coding variables based on a careful review of respondents' answers to each of the structured interview questions. Four broad themes emerged from this review and helped to organize the data for further analysis: Demographics, Factors that Increase Student Engagement, Factors that Decrease Student Engagement and Place-Based Education. Within these thematic categories, 16 coding variables were established as a framework for detailed data analysis. Following principles of phenomenological analysis, after reviewing all responses in the main visualization, the content of interviewee responses could be organized using the thematic framework and corresponding codes described above. Multiple interview questions focused on student engagement and instructors' use of place; thus, participant responses provided rich data related to these topics. However, as is typical in qualitative research, responses to one question often

incorporated comments that related to another question. The coding scheme allowed the data to be organized according to theme, whether or not an interviewee provided that data in response to a question focused on that topic. For example, when asked: Can you describe what you observe in students when you use place in the design of learning experiences? Piedmont #3 said,

> If we've been in the classroom for the entire semester, and then we go and we are somewhere else. That movement, that change will engage them. I have seen where students can't learn in the classroom and they learn much better in exterior places where there are things to distract them from themselves.

This response was then coded under factors that increase student engagement: location of learning because they related that a change in location outside the classroom to increased engagement. The next section explains how each theme was further analyzed using specific coding variables. Definitions for each coding variable are also presented.

Codes

Demographics

Design Educator: Educators' identities have been redacted and given pseudonyms under this code. To better protect the identity of participants, gender was not considered. Participants will be referred to by their geographical region and a number, e.g., Coastal Plains #3, Piedmont #1.

Region of Georgia: As part of the research design, instructors from the various regions were contacted; however, only participants from the Coastal and Piedmont regions took part in the study. This code allows for a comparison of teaching styles between the two regions represented in the sample.

Area of Expertise: This code captures the past experiences of participants and field of concentration. Areas of expertise included, for example, Graphic Design, Photography, and Arts Administration.

Recent Instructed Courses. This code demonstrates the course topics that respondents have instructed. Courses in this code include graphic design, digital photography, 2-D / 3-D Design, art education for generalists and topics in American art.

Factors That Increase Student Engagement

Structure of Learning Environment: This code describes what respondents said about how course organization can enhance student engagement. For example, respondents might use a traditional lecture environment or, alternatively, organize their courses in a manner that is project-based and collaborative.

Project Design: Refers to how participants described projects that were part of their courses.

Observed Student Behavior: Refers to how participants described what behaviors they observed in their students that increased engagement. For example, asking questions might be a behavior associated with curiosity. Verbal and non-verbal responses can indicate understanding.

Location of learning: Refers to how instructors described the environments, e.g., the classroom, a studio, or another location, in which they teach as well as how space impacts learning.

Perceived Usefulness of Skills: Refers to how participants in the study talked about practical skills that can be used by students in future academic projects or their careers.

Instructor Behavior: Refers to how participants described their interactions with students and whether they referenced instructional techniques, e.g., material demonstrations, software tutorials and/or lecture-based instruction.

Factors That Decrease Student Engagement

Structure of Learning Environment: This code describes what respondents said about how the organization of their courses decreased student engagement.

Project Design: Participants explained the projects that were part of their courses that they believed decreased engagement.

Observed Student Behavior: Participants described behaviors they observed in students that decreased levels of student engagement.

Location of learning: Instructors described how the environments in which they teach were associated with lower levels of engagement, as well as how space impacts learning.

Perceived Usefulness of Skills: Refers to respondent comments related to students' perceptions about the usefulness of what they were learning and levels of decreased engagement.

Instructors Behavior: Participants described situations in which their interactions with students and instructional techniques were associated with lower levels of engagement.

Place-Based Education (PBE)

Familiarity with PBE: Refers to participants' understanding and familiarity with place-based education as a formal pedagogy.

Definition of PBE: Refers to how participants defined what place-based education means to them.

Why Instructors Use PBE: Refers to explanations provided by participants about why they use place within their courses.

Why Instructors Do Not Use PBE: Refers to explanations provided by participants for not using place within the courses they teach.

How Instructors Use PBE: Refers to responses that focused on how place is incorporated by participants into their courses.

Outcomes of PBE: Refers to how participants described outcomes of place-based practices.

Results

This section presents the results of the data analysis described in the previous section in a nonevaluative, unbiased, organized manner. These results are organized by the four themes: Demographics, Factors that Increase Student Engagement, Factors that Decrease Student Engagement and Place-Based Education.

Demographics

Nine design educators from Georgia colleges and universities took part in the study: Five participants from the Coastal Plain Region and four participants from the Piedmont Region. Areas of expertise of respondents included sculpture, graphic design, photography, arts administration, art history, art education and drawing. Respondents' teaching experience in higher education ranged from three to twenty-seven years with an average of ten years of experience. The zoom interviews lasted approximately one hour with the longest duration of one hour and ten minutes and the shortest interview forty-seven minutes. When instructors were asked what courses, they have recently instructed, responses included the following subjects: Graphic Design Methods, Digital Photography, 2-D / 3-D Design, Art Methods for Secondary Education, Issues and Trends in Art Education, Topics in American Art, Motion Graphics, Environmental Design, Color Photography, Studio Lighting, New Media in Design, Legal Aspects for the Arts, Arts Administration, Drawing I, Drawing III, Figure Drawing and Typography I.

Factors That Increase Student Engagement

Participants in the study provided data that addressed their perceptions about how the following six factors impacted student engagement in their experience as educators.

Structure of Learning Environment (LE):

Respondents report that when students have the opportunity to work collaboratively, when they feel comfortable in their learning environment, and when they spend time actually making something, they are more engaged. For example,

Piedmont #1 said that engagement increases when students feel that the class is, "more about a collaboration." In addition to collaboration, Coastal Plain #2 noted the importance of helping students to feel comfortable in their learning environment. When course structures focus on and encourage student interaction, respondents report that the result is higher engagement. Coastal Plain #2 reflected other respondents with this comment: “Create a learning environment that allows you to want to be in relationship with the people that you're in a space with.”

Respondents pointed out that when students feel they are making something, they are more engaged. Students benefit from hands-on learning experiences as noted by Coastal Plain #4: " I think students learn from making." In addition, Piedmont #3 stated that in their courses they “lecture less and do more… My studio classes are very hands-on and they are all project-based.” Respondents work to increase student engagement by emphasizing course structures that teach content through scaffolding projects. As an example, Piedmont #4 stated, “Scaffolding is huge for me, so it’s really looking at how each project transitions and builds on the previous one, and how they can start utilizing those skills in more creative ways as they move forward.”

Related to the idea that engagement rises when students feel they are actually making something is what Coastal Plain #4 had to say about encouraging students to challenge their designs: “I tried to instill the idea of working in a series. Where what you start with will kind of incrementally change with each iteration, and what you end up with may look quite different than what you started with.” During this continual process of actually getting to make something, students can be more engaged. When

course structures are project and hands-on-based, respondents reported that there are more opportunities for students to be engaged.

Project Design:

Respondents report that when their project design challenged creativity, was organized for learners to progress and resulted in presentations, students are more engaged. Challenging students to push themselves in the design process can happen through creative limitations. Creative limitations happen by purposely limiting students as a way to drive creativity such as having required materials or a particular limited timeframe to complete a project. For example, Piedmont #4 said that engagement increases, “When you start to narrow things, creativity starts to blossom. So, it really gets them to see not only potential and the things that they're doing but also potential in themselves." When the project design was organized into phases, sometimes students are more engaged. For example, Piedmont #2 created guidelines and steps to help students progress through the design process: “…my projects are also broken up into assignments each piece of the process: mood boards, style frames, storyboard and market research.”

When students are creating a design in phases, often the final phase is presentation. Respondents noted that when students presented their works to others upon completion, often they are more engaged. Presentations created opportunities for students to showcase their final designs and interact with their classmates as the audience. When designing presentation guidelines for students, Coastal Plain #2 structured the experience, “In a way that is peer centered as audience." This method

actively involved more students in the culmination of the design. In addition, the project design can organize the learning so that way students can progress in a positive manner. Respondents frequently described this progression of knowledge and skills as scaffolding. For example, Piedmont #4 said that they try, “not only to scaffold the learning outcomes but students’ confidence in themselves.” This building of confidence in students sometimes resulted in students being more engaged.

Observed Student Behaviors:

Respondents report that when they observe behaviors that are associated with curiosity, collaboration, and understanding in the students’ behaviors, they are more engaged. For example, Coastal Plain #2 described student behavior when they are engaged in learning as “they’re making eye contact with instructors, are attentive, demonstrate a passion and curiosity and they don't want the learning to stop. They want to talk about projects and assignments beyond class". This drive and curiosity to see how far students can push their design was also supported by interaction with classmates. When they are curious, Coastal Plain #5 said, “students are discussing questions and taking notes.”

In order to be able to collaborate, the students become active members of the learning environment. The collaboration was described as an observed behavior of a more engaged student. According to Piedmont #2, collaboration was observed in students when, "They listen to each other, they asked questions very openly, they also talk with each other and give feedback to each other.” This collaboration is often focused on students helping each other enhance their projects and providing feedback

in regarding the design that they are currently working on. Several respondents noted that this collaboration is not only focused on the final form of the design but the ideation process as well. For example, Coastal Plain #5 identified a more engaged student when, “I see them discuss their process with each other." As students help each other through the problem-solving phase of the design process, they are getting a better understanding of the project by seeing other classmates’ designs.

When students demonstrate an understanding of class content, they are sometimes more engaged. This understanding of a learning experience was observed by Coastal Plain #3 when students “start talking to each other, or they'll start sharing each other's work. They start teaching each other." This ability to have a level of understanding of the class content at a level that resulted in peer instruction was an observed behavior of more engaged students. In addition, Piedmont #1 described what happens when students understood projects and are deeply engaged: “There are no questions, they understand the direction and expectations; they're really involved in the program or the software or the tools they are using." Coastal Plain #4 described when a student understands a project and knows what to do as “really focused on the making of what they're doing. Sometimes just looking at their work and doing different iterations of work."

Location of Learning:

Respondents report that when the location of learning takes place in a welcoming space or studio classroom, students are more engaged. Some respondents expressed that a space can affect mood and emotions. When the location of learning is

a welcoming space, Piedmont #1 said, " The location or the space really affects how you start your day. Spaces, where it's super open and a lot of great light and it affects your productivity." Building on the idea of the learning taking place in a welcoming location, Piedmont #4 said, " Clean spaces are important, I think, once you have a clean space, it unclutters their minds quite a bit." This allows the students to focus and concentrate. When the location of learning is inviting to students, they are more engaged.

The studio environment was identified as a location that enhances engagement. For example, Coastal Plain #3 said, “Being in the art studio I think produces that inquiry and curiosity." Coastal Plain #4 described the studio location as,

> An environment where a group of students and faculty come together, with shared aims and work under the same stress and same stimulus. When they are in that studio atmosphere, they are putting in the time, answering tough questions and in an ideal situation there feeding off each other's energy, that doesn't happen when working in solitude.

In addition, a studio location offers the advantage to students of not being alone and working with others during the creative process. Furthermore, the location can impact emotions. According to Piedmont #2, the students “enjoy being in the lab together, because we have that presence and we all have almost like a good rapport with each other and students feel like they can talk to each other and help each other out."

Perceived Usefulness of Skills:

Respondents report that when the skills learned in their course are perceived by their students as useful, students are sometimes more engaged. To accomplish this goal, Coastal Plain #2 said they “structure learning environments to be as meaningful and relevant to students and their career goals." Expanding on this value of usefulness of skills, Piedmont #1 said within their courses they are "Teaching students’ multiple skills, to help them find jobs." For a skill to be considered useful, students need to understand why it is useful. To accomplish this goal, Piedmont #4 said they introduce new learning experiences by telling students “Exactly why they're doing what they're doing and how is it going to benefit them in the future." Setting the stage for students to understand how content can be applied beyond an individual project increased engagement.

Respondents found that when students are working on useful projects that can exist in the real world (not just in the studio or classroom), they are more engaged. According to Piedmont #4, “Students want more hands-on [experiences], but also more real-world experiences." For example, Coastal Plain #5 said, “They are excited to be making something out of nothing.” When they are creating, Piedmont #1 said, "They want to make something that they can use or that is functional and be able to showcase it when they're out in the open, out in the public." This idea of students seeing their design as a prototype for larger ideas was best described by Coastal Plain #2 as, "They tell me how they have this idea and they'd actually like to see it in the real world, and so they use this opportunity for projects to expand on what it could look like in the future."

Instructor Behaviors*:*

Respondents report that when their behaviors provide students with guidance, variety in instructional approach, flexibility and self-critiques of their own teaching effectiveness, students are more engaged. Instructional behaviors are varied, from working side-by-side with students to the way they provide students with design critique. Coastal Plain #5 said,

> I work alongside of my students. I am either working on something that I have assigned to them or I am working on something that they might benefit from seeing me work on. When I first started teaching as a graduate student, I didn't know what to do with myself for a three-hour long studio class. I needed something to do while they were working. So, I just started bringing in work for myself and I think that's been a very helpful thing. It also shows them that the objects don't make themselves you actually have to spend the time at it.

As students spend time working on designs, Piedmont #2 used a variety of instructional approaches for providing students with feedback about their work. This instructional variation resulted in students something being more engaged. For example, Piedmont #2 said, "When I was a younger professor, I would sort of wait to do feedback towards the end of the project, because I liked that element of surprise. As I've matured as a professor, what I realized is that it's more important for the students to see how they can improve as they're going." Respondents also acknowledged how self-critiques of their own teaching effectiveness was a strategy for self-reflection to enhance project design. As a strategy for self-critique, Piedmont #1

said they "Collect data [from their students] and see what skills that they need to improve on. By checking in with students to see if there's any questions or any misinterpretations when they are working on their project." Connecting with students and making sure they understood the design problem and feel comfortable communicating ideas was an instructor behavior that sometimes led to students being more engaged. Getting to know students as a link to engagement was also identified by Piedmont #4 when they said, " I think the biggest issue of an unengaged student is one that you don't really know them well enough."

Respondents believed that flexibility in their instruction was a behavior that resulted in students being sometimes more engaged. Flexibility was demonstrated when Piedmont #3 said, "I will let some improvisation happen throughout the semester depending on learning styles of the students that I have." Flexibility was also related to the use of class time, for example, Coastal Plain #3 said, "I tend to stop the classes, a few minutes early at the end, so that they can walk around and look at each other's work; sort of like a mini critique and maybe generate ideas for each other and inspire each other."

Other instructor behaviors focused on personal strategies that they believed enhanced student engagement. For example, Coastal Plain #3 said, " I am very good at getting students to learn without realizing they are learning until after the fact." Or Coastal Plain #1 said, "I am trying to push my students to have a voice and have them share why this is important and have an intention for what they are photographing."

Factors That Decrease Student Engagement

Participants in the study provided data that addressed their perceptions about how the following six factors impacted student engagement in their experience as educators.

Structure of Learning Environment (LE):

No respondents reported the structure of the learning environment as a contributing factor to students being less engaged.

Project Design:

Only one out of the nine respondents provided observations about why their project design resulted in students being less engaged. Coastal Plain #5 believed that a lack of understanding of the project goals was a contributing factor. The design problem their students struggled with was to create an organic form on a wire armature using paper mache. Coastal Plain #5 said, "I showed them images of artists that worked with organic forms, and instead they took it really literally. Ex: a penguin and cat with a kitten. I was thinking more about form and something not so representational." This misalignment with not understanding the design problem resulted in students not meeting the instructors' expectations.

Observed Student Behaviors:

Respondents report that they observe lower levels of engagement when students behave in ways that demonstrate they are rushing to get to the final design, distracted and not meeting project goals. The design process takes time, and some students are just rushing to get to the final outcome. When this happens, it can be an indicator of students being less engaged. For example, Coastal Plain #4 said,

> I believe they're not really engaged when they're peeking ahead to the rubric. This is really about the grade and not what you're creating. That motivation to get to the final solution as quick as possible, I think that shows a lack of engagement, that you're not really thinking through the process you're just trying to get to the final ending outcome.

Adding to this idea of trying to just get the project done, Coastal Plain #5 said they observe lower levels of engagement when students are, “looking for shortcuts in the project with problem solving being set aside”.

Respondents report that distracted students behave in ways that suggest lower levels of engagement. Piedmont #4 captured distracted behavior as “their mind is somewhere else.” Many of the participants also identified student cell phone usage as a key factor of distraction. According to Piedmont #2, “Probably my biggest disengagement is having them on their phones." Piedmont #3 said, “Head on a desk, not making eye contact, not looking at me, cell phone in hand, cat videos." In addition, Piedmont #2 said, "They're on their phone, there's blank stares, they don't turn their work in, they don't show up." The phone was seen as a distraction by most; however, Coastal Plain #5 felt differently about the cell phone usage. Coastal Plain #5 said,

> When they’re on their phones, I used to be a lot more offended and take it personally. Now I am starting to realize that sometimes they just really have something serious going on. Since Covid especially and in my online classes, I will have a student just disappear. There may be something else serious going on and

I'm just not aware of it. I have become a much more compassionate professor; I think than I used to be.

Respondents pointed to students not meeting project goals as behaviors that indicated that students are less engaged. Often this behavior was attributed to students' distraction or disconnections in the course. According to Piedmont #1, once students are disconnected from the class, it resulted in them not "Really completing the project requirements." In addition, Coastal Plain #3 described unengaged students as follows: "Boredom or students sleeping, they're not engaged, they're not getting it." Lastly, a total disconnection from the course was described as "ghosting." Piedmont #4 said, "I do have a lot of ghosting. They just don't communicate if they're going to be gone."

Location of Learning:

Respondents report that when the location of learning is uncomfortable, distractive and students have poor access to proper tools and materials, they are less engaged. Respondents mentioned that the physical learning environment impacts students' level of comfort. For example, Piedmont #4 said, "There is a lot to do with that environment being comfortable, because if you're if you're physically uncomfortable, you're not able to concentrate really on anything." Piedmont #1 described an unwelcome, uncomfortable location as a "Smallish lab, packed with Macintosh computers. So, it's really tight and not that inviting. A lot of the windows are blocked. The space is like the TV show The Office."

One participant also indicated that regardless of the location of learning, distractions in any space can hinder students' abilities to learn and decrease engagement. For example, Coastal Plain #2 said, "I watched students in online and virtual environments completely thrive and then I've watched them completely fail when they don't have a quiet space to learn. When there are these distractions that make it get too hard to focus." In addition to having a place to focus, not having all the needed resources and tools can result in lower levels of student engagement. For example, Piedmont #3 said,

> It makes a big difference if you have all of the tools, you need. All the materials, you need, and they are readily in the classroom. If you are not in a good space, you don't have big enough tables, for the style and with the thing that you are making that can be problematic and students have a much harder time finishing work.

This challenge of not having access to the material and tools needed has been exacerbated by challenges associated with Covid-19. Coastal Plain #5 said, "Last spring 2020 we had to shift and go online. I was teaching 3D design and that's a real challenge to teach that online and one of the projects I had to do away with completely because it was so studio-based there was no way they could do it at home."

Perceived Usefulness of Skills:

Two out of nine respondents reported that when the skills learned in their courses were not seen as useful, students are less engaged. Piedmont #2 and Coastal Plain #5 stated they believed that students wanted to do the work to just get the grade, to move on and not necessarily have interest in improving their skills or they

believed that particular skill was not relevant to them. For example, in a Web Design class, Piedmont #2 said, “Students recognize that knowing HTML basics are important to have in their toolbox, but they fight it. Unless it is an actual computer science program or web development program. They're only doing it because they have to have it to fulfill a credit in this program." Building on the idea of just doing the work to simply move forward or just get a grade, Coastal Plain #5 said, “It’s about getting a degree and then getting a job because of the degree. So, the students seem much more concerned with getting the grade, getting it done. and getting out than they are about actually learning, I have seen a real loss of curiosity."

Instructor Behaviors:

Coastal Plain #5 reported that if they are bored with the learning materials, it can result in students being less engaged. They indicated that they teach the same course throughout the year and to keep themselves more engaged with their course responsibilities, Coastal Plain #5 said that one strategy was, “Every time I teach a course I teach it a little bit differently, because I get bored otherwise.”

Place-Based Education (PBE)

Familiarity with PBE:

Two respondents directly reported that they were unfamiliar with PBE as a formal pedagogical approach. Coastal Plain #4 said, "I'm not familiar with that term" and Coastal Plain #5 said, "I have no idea." Coastal Plain #2 was familiar with the term and responded, “Place-based Education, learning from the history, people and landscape of a particular place.”

Definition of PBE:

Even though some respondents reported that they were unfamiliar with PBE as a formal pedagogical approach, their comments suggested that they understood the concept. Interpreting what PBE individually meant to them, Coastal Plain #4 stated that PBE is, "The environment that learning is taking place." When asked to define the term in their own words, respondents reported that place can be an asset that impacts creativity, context, and motivation. For example, Piedmont #4 said, “When I think about place-based education, everything is there that you need, like you're not struggling to go out and search for something else outside of it; it's there and that's what kind of fosters all that creativity."

Place was also seen as a construct for building course content that goes beyond just the physical environment. Coastal Plain #2 said, “It's not only being physically in a place; the place is history and context is influenced by both humans and environmental factors." Place as context can be used to design learning experiences, according to Piedmont #3 who said, "Education is site specific and using the space, to develop curriculum within it.” An example of this use of place to enhance learning was described by Coastal Plain #5:

> An upcoming topic in my American Art course is going to be focused on the art of indigenous Americans throughout through history. I would like to spend some time focusing on the indigenous people who live here and we have Sapelo Island, which is up the road from us. There's a Shell ring mitten, an island out off the

> coast, and I'm hoping to get a ferry and take students out to see that, and I guess that would be place-based.

In addition, the use of place as motivation for learning was described by Piedmont #1 as, "How place affects the learning experience. How the location really motivates and encourages learning."

Why Instructors Use PBE:

Some of the reasons why respondents use Place in their courses included building concepts and inspiration from the student perspective, and job responsibilities from the instructor perspective. As a way to build concept for a design, Piedmont #3 said,

> From a concept perspective, place is very powerful; place can be tied to memory, it can be tied to existence, it can be tied to family. If I am in this place, I think of these things this place reminds me of or maybe there's a smell that happens in a certain place and that smell automatically brings you, to a certain kind of physical space.

As a source of inspiration and to understand our own body in relation to a work of design, Piedmont #1 referenced place as important to "Being aware of where you are and where the sun is. Your source of light today and how those shadows are created to really convey more engaging designs and at the same time creating depth making a better connection to the audience." Piedmont #2 offered an additional reason for using place in teaching design concepts and skills: job responsibilities.

Citing the institutional expectation of faculty interacting with the local community, Piedmont #2 said, "As part of our [performance] evaluation as a professor for this college, we're required to have some sort of service and community engagement." Thus, at least for one respondent, the use of place fits naturally within the scope of an instructor's performance expectations.

The interview question that focused on why instructors use PBE in their teaching generated a rich variety of reasons and specific examples. The excerpts below offer useful and interesting insights into how the respondents in this study understand and use place as part of their pedagogy:

- Coastal Plain #1 described the use of place in relation to the topic of photography. When their students explore place through photography Coastal Plain #1 said, "I challenge students to reflect upon where they are and why they are photographing it. Why are we looking at this, what do we need to know about this particular place?" Capturing moments in time can happen through the exploration of place."
- Coastal Plain #5 described how place is important to their own research as reason for incorporating place within their courses. Coastal Plain #5 said, "My research is centered around space and time. Once the time has changed, that space is different. Location and home and becoming part of a community is really important to me and marking that in my work."
- Coastal Plain #2 used place in their course because of their own appreciation of place as a construct, as illustrated with this comment: "I defined place to

include the history of people in landscapes. I feel that place is the crux of civilization and human inquiry at all times to understand the mysteries of the world. Place, activates all of our senses, it allows us to connect to ancestors or our past and ways of thinking about meaningful ways to engage in the future."

- Piedmont #2 believed focusing on place can allow us to give back to the community and beyond. Piedmont #2 said the use of place allows us to, “Give back to society and to the world, and I mean I think that's one reason why many designers do what they do, not just to make things beautiful but to feel like they have something to give back: to places that they love and people that they love."
- Piedmont #4 saw place as part of the 3D Design curriculum: “In the 3D curriculum place is everything the whole course is built around place and environment"
- Coastal Plain #3 described the use of place in art education and how art educators teach in different places and environments. Coastal Plain #3 said, “We can teach in K through 12 classrooms. We can teach them in a museum. We can teach in a Community Center. We can teach a group of people in a senior Center. We don't have to be necessarily site specific and by opening up where you learn opens up where other people can learn as well. Sometimes teaching not in the classroom is more fun. I teach in the classroom every day, but I love going to the art center down the street for a painting class. It opens you up and makes you more apt to learn."

- Coastal Plain #4 described how place can give students a break from technology as a reason for why they use place. They said, “So much of the world that students know is through a screen, and I guess I’m a believer and, yes, technology is good but it's also good to unplug and be aware of the world around you. So, I tried to do a little bit more of that. Encouraging students to kind of unplug and just pay attention to what's around them.”

Why Instructors Do Not use PBE:

Respondents reported several reasons why they did not use place in their courses. These reasons included project design, transportation, logistics, and time constraints. Piedmont #1 explained that project design impacted the use of place depending on the project’s emphasis. For example, Piedmont #1 said, “A lot of the projects are digital based, and so you can do a lot of your research online.” Transportation was considered one of the institutional obstacles that make it difficult to use place. Coastal Plain #2 said, "A lot of my students use public transportation and so that is incredibly limiting to being able to move my class. The class period is only one hour and fifteen minutes." Additionally, Piedmont #4 described logistics as a reason for not using place with this comment: "One of the hardest parts of incorporating place is logistics. We run five sections of classes that is one hundred students. How would I get all of them to have that same outside place experience?” Finally, the time of day when the course is scheduled was also expressed as a challenge for using place. Coastal Plain #3 said, referencing a past course, “We couldn't go to

museums, I had to get permission to go to the university's gallery to get it open in the evening, so it was a little bit harder."

How Instructors Use PBE:

Respondents who do integrate a place component within their project design and course structure described a myriad of projects within courses that incorporated a role for place. Noteworthy examples are listed below in relation to the course that was described by the participant.

- *Art Appreciation:* "We put together a scavenger hunt that was confined to campus. So that we didn't have to do any field trip safety forms, or anything like that. The students helped put together the list of scavenger items and they have to take a picture of them and add it to the discussion board and discuss. Different items have different questions: some are about elements of art, some about analysis. But the students came up with a lot of the items on the list, which I thought was kind of interesting because it was the first week of school." Coastal Plain #3
- *Art Education:* "For the art educators, half of the class is a field experience outside of the classroom. They have four weeks where they're observing a mentor teacher, four weeks where they're co-teaching and two weeks where they're teaching." Coastal Plain #3
- *Painting One:* "I ordered French easels and we went outside. We sketched the buildings, we sketched people, we did watercolor, and then I took them to Ghost Ranch in New Mexico." Piedmont #3.

- *Printmaking One:* "We were all kicked off campus [referencing the Covid shutdown in the spring of 2020] and gone home and we're all in quarantine. I still had to teach printmaking…that was a challenge, so much so that it took me a while to figure it out, and so I was just like all right, everybody go grab a potato let's do some potato prints because, their space was limited, their materials were limited, and I wasn't in the room with them to correct any misguided adventures, and so those things all kind of relate to the space for designing student learning." Piedmont #3
- *Drawing One:* "I reached out to the biology department and we did microscope drawings, so I took the whole class over there; we had a lab for a day." Piedmont #4
- *Drawing Three*: "Going to the botanical gardens, which 90% of the class didn't even know it existed, and it's literally right on our campus. I feel Drawing Three is like really opening their eyes to everything. For another project, we are drawing machines and pairing up with engineering students. We have a brand-new engineering program and [we are] trying to get that interaction happening." Piedmont #4. In addition, Piedmont #4 describes creating a "Fundraising calendar for the humane society."
- *Typography Two*: "Send them out in the field with cameras to document high low vernacular [Visual vernacular is a look that is associated with a particular place, group, event or time]. Find design comparisons, for example, try to find and examine signage that someone made for themselves or examine the

graphic design from flyer boards on campus to distressed billboards or signage on an old building in town. Even though the tools are kind of crude in the training isn't there, maybe there's something good in an unexpected way that we could learn from." Coastal Plain #4

- *Drawing One*: “For my perspective project, students find a spot and then draw it using a one-point perspective." Coastal Plain #4
- *Drawing Two*: “I call it a response project and what they do is they begin the first mark they make on their surface is made by nature. It can be water, it can be fire, it can be smoke”. Coastal Plain #5
- *Art Appreciation*: “I have had students post pictures of graffiti which is kind of fun.” Coastal Plain #5

Outcomes of PBE:

Respondents reported outcomes of PBE that included learning to think about design differently, achievement of course requirements, creating a final design for a client, and sharing their own personal research interests with place with students. PBE was used to create learning experiences that cannot be replicated in the classroom and therefore exposed students to diverse ways of thinking. For example, Piedmont #3 took students to Ghost Ranch in New Mexico. Ghost Ranch is an educational and retreat center that fosters well-being through historic, inspiring southwest landscapes and home to the art studio of Georgia O’Keeffe. During this experience, the student’s environment impacted the way they learned. When talking about the Ghost Ranch experience, Piedmont #3 said, “This was very much place-based because of the

landscape, the large mountains, the mesas, the trails the setup of the facility, where we were and what we were doing influenced the work that they made while we were there."

As a part of the structure of an art education curriculum, completing classroom observations is generally a degree requirement in order to provide students with opportunities to observe how experienced instructors used their own particular classroom as an educational tool. Coastal Plain #3 said, "What you learn there you can't learn anywhere else. I have it set up, so the first four weeks of doing observations they are doing reflections on different things, so the first week they might be reflecting on classroom organization. The second week they might be reflecting on how the teacher uses communication. So, they're not necessarily looking through; okay in this space there's right and wrong good and bad it's how things are done in this space."

Creating a design for a client was an outcome of PBE in a graphic design class taught by Piedmont #4. In this case, students rebranded a local soup kitchen. When talking about the project, Piedmont #4 said,

> We worked with the homeless shelters and did a rebranding for soup kitchens. We rebranded their logos and gave them a fresh coat of paint. They could then advertise to the Community that this [service]is available for people. Students were engaged, because it was something outside of themselves. It was a project for someone else, and I think that outside pressure really set the bar for a lot of them. They pushed further than they normally wouldn't in a classroom situation. I think anytime you're doing something for someone else a client-based

situation. I think you're going to get more out of the students because there's this real-world pressure; it’s not just so I’m going to get a grade.

Coastal Plain #5 responded that sharing their own personal research interest with place with students resulted in increased levels of student engagement. Within a paper casting project, students turned local plants into paper. Describing this project, Coastal Plain #5 said, “We worked with some of the invasive plants we have in the area. We worked with Virginia Creeper, English Ivy, Muscadine vines. I am doing this project with my students because I’m fascinated with this right now. I feel like if I am enthusiastic about something maybe it'll, you know, spread to them, so at least that's kind of what I always hope."

Summary

The topics that were mentioned most often in the interviews were place, engagement, and course structure. The issues that were most important to the design education instructors in the study focused on how place-based education fosters collaborative learning, enriches the educational experience by challenging students to push their designs, and allows students to physically engage with learning environments. In addition, when they use place-based education in their courses a result is an increased level of student engagement. Also, when place becomes a component of the course structure, it gives the course variety and introduces students to how location can become a resource for enhancing future designs.

Throughout the interviews, participants viewed the topic of place-based pedagogy as timely, relative, and practical. The relationships that are apparent within

the data are cause-and-effect, function, and sequence. Many of the cause-and-effect relationships are related to project design and student engagement. For example, scaffolding approaches to teaching helps students build upon previous skills. Skills needed to complete future projects or to be used in a career. The data also suggest that the term “location” has a broader meaning than the physical location where learning occurs. The data was ordered into meaningful grounded theories by the overlapping of shared experiences by participants identified through a coding procedure derived from the four research questions of the study. Chapter five will provide conclusions, implications, and recommendations for future research.

CHAPTER 5: DISCUSSION

This chapter will provide a comprehensive summary of the study and how this research will contribute to the body of knowledge on Place-Based Education (PBE). The chapter includes a summary of the findings and conclusions, theoretical and practical implications, limitations, and recommendations for future research. Using a phenomenological approach, this study investigated PBE, a pedagogical approach that takes learning outside the classroom into local environments (Knapp, 2005) by design education instructors in higher education. This chapter includes an interpretation of findings and suggestions for future research which address the following research questions:

1. Why do design education instructors in higher education use Place-Based Education in their courses?
2. How do design education instructors in higher education use Place-Based Education in their courses?
3. What outcomes do design education instructors in higher education observe in students when they use Place-Based Education in their courses?
4. How do design education instructors in higher education describe the impact on student engagement when they use Place-Based Education in their courses?

Interpretation of the Findings

The use of a qualitative research design and the phenomenological inquiry method captured perceptions of nine design educator participants' authentic, lived experiences through semi-structured participant interviews that focused on how and why instructors use PBE in their courses. This interview structure allowed for open-ended responses while giving participants the time and ability to delve deeper into the interview topics and truly can share their lived experiences. This design was the preferred way to generate the data needed to address the research questions of the study. A purposeful sample of participants was recruited to increase the probability that their experiences would inform this study. This sample was comprised of participants that instructed both foundational level and special topic courses within various design disciplines. The data resulting from the interviews had a strong emphasis on participants' instructional methods as well as their perceptions about factors that can enhance learning and levels of engagement among students. In addition, the data provided insights from the participants about how and why they incorporated place into their course designs.

Perhaps the most striking overall finding that emerged from this study is that although many respondents did not have a formal understanding of PBE as a pedological learning strategy, they nonetheless acknowledged that there is significant value in place as a construct that can enhance learning. Participants viewed place as a critical component of design education that can both inspire and challenge students while providing a variety of instructional methods. Data from this study also suggests

an important insight related to participants' understanding of place: the term "location" has a broader meaning than the physical location where learning occurs. This insight is different from the way place is generally used in PBE literature.

When thinking about how to incorporate place into their courses, instructors need to fully understand the location in which they are teaching. This understanding of a location extends beyond the geographic location to include the location's history, natural environment, and physical resources. In addition, when considering the use of place in teaching, locations can exist both on campus and beyond into the local or regional communities, or even further. Study participants identified the university and college environment of the campus setting as a strong starting point for incorporating place beyond the traditional classroom environment. In addition to viewing the campus as an extension for learning experiences. The local community both people, places, and objects are also a resource and location for conducting place-based education. This study generated both broad data on place and student engagement as well as rich focused data to answer the following research questions:

Why Design Educators Use Place

Design instructors use place-based education in their courses to provide variety in course structures, extend learning environments beyond the classroom as a way to develop content and concepts for designs, and because place is a valued component of their own research. Providing a variety of experiences for students was cited by instructors as an important reason for using place. Instructors try to create rewarding learning experiences for students and the use of varied instructional approaches is one

way to accomplish that goal. A place-based component helps to break up the monotony that can result from only classroom-based learning.

The instructors who participated in this consistently described the structure of their courses as project-based, i.e., they divided the course into a series of projects beginning with a design problem or prompt that challenged what the students needed to create, and often building from one project to the next. During the interviews, respondents provided focused explanations about the various projects they developed for their courses and were excited to talk about the different projects in great detail. Taking a project outside of the classroom was a way for instructors to create variety in the course learning experiences and a reason why they use PBE in their courses.

Instructors use PBE because they found value in extending the learning environment beyond the classroom as a way to develop content and concepts for designs. This use of place was often directly integrated into the design process. Place can be a component that can help students develop both concepts and materials within the construction of the design. For example, if a design problem required students to make a three-dimensional form out of materials from a forest, they could use that location to gather sticks, rocks, and moss. Once a design problem is established, the next phase of the design process is to investigate to find a solution to the design problem.

A strategy for the investigation phase is to observe. The observation of the world around students can happen in many ways. Participants described using their local environments outside the classroom for the investigation phase of the design

process as a reason for the use of PBE. Local environments are convenient for students to explore and allow them to better understand the community where they live. For example, when students are outside the classroom as part of their investigation, they can better understand light and shadow, select a location to draw one point perspective or analysis, and investigate typography on old buildings as a way to create a new style of text. Thus, extensions of the learning environment helped students develop content and concepts for designs in a way that was not possible if learning activities were restricted to the classroom.

In addition to being instructors, all participants were designers and artists with active creative practices working in a variety of media. When a particular idea or method is important to an instructor, it is not surprising that they have a natural interest in sharing their experiences with students. Design educators who participated in this study also reported that they used the place as a way to develop their own artistic projects and confirmed that this motivated them to use PBE in their courses. The phenomenological approach to this study captured the lived experience of participants both as artists and designers and as instructors seeking to enrich the learning environment for students. Whether this was by using place as a source for gathering natural materials needed for a design project, or establishing subject matter for photography, using place was important to study participants. This importance of place within their research and the desire to share with their students something they are passionate about was cited often as a reason to use place in their courses as a way to connect more and get them excited about learning.

How Design Educators Use Place

Design education instructors use place-based education in their courses by taking students outside the classroom to other locations across campus, and as a way for students to have field experiences beyond the campus environment. Instructors understood the resources across campus found ways to integrate locations outside the classroom into the project design. For example, one instructor had students use microscopes in the biology lab to draw various cells. Another instructor created a campus scavenger hunt where students had to identify design elements and principles within the physical campus environment. Creating learning experiences that required students to explore the campus environments was a way that design educators in this study used PBE.

In addition to incorporating campus environments, instructors incorporated field experiences in their courses that went beyond campus. These experiences helped expose students to real-world experiences beyond the academic setting. This incorporation of place beyond the campus was integrated into projects and overall curriculum requirements. For example, art education students, as part of their degree requirement, are required to conduct classroom observations with a lead teacher or work with an organization within the community. For example, one client-based project allowed students to rebrand a soup kitchen. This project allowed students to understand the needs of the organization and create a design specific to that place. Creating a design that mattered for someone else challenged students to think beyond themselves and create practical designs that exist in the real-world.

The environment beyond campus was also incorporated into courses as a way to gather materials for projects. Instructors used PBE in creating design problems that encouraged students to find materials within an environment that they select. For example, photography students developed subject matter that was important to them; a process that naturally encouraged exploration of place. Instructors also use place to create project constraints that required students to incorporate elements from nature into their design.

Outcomes of PBE

The most meaningful outcome that design education instructors observed in students when they used place-based education in their courses is an increased level of student engagement. Drawing on the variety of data provided by study, participants suggested that this increased level of engagement can be related to the three dimensions of engagement. First, when projects provided students with real-world practical experiences, they were more cognitively engaged because they acquired useful skills that could be used for future projects or their careers, particularly when projects pushed students beyond the project descriptions. Second, participants observed behavioral engagement when students integrated new learning environments, and instructors observed students being less distracted and more involved. Third, emotional engagement was observed by instructors in the way the PBE assignments created signs of enjoyment and enthusiasm in students. This was demonstrated when students posted images of their final designs on social media or helped classmates develop design solutions.

Research has established student engagement as a strong predictor of increased learning (e.g., Burch et al., 2016; Kuh, 2003; Joplin, 2008). However, because student engagement is a multi-dimensional construct with cognitive, emotional, and behavioral components (e.g., Finn, 1989, Fredricks, 2004; Walker, Greene, & Mansell, 2006), instructors face a challenging task: finding ways to design and teach courses in ways that stimulate all three of these dimensions. While the design educators in this study unanimously reported that increasing student engagement was the desired outcome, achieving that goal can be difficult especially over the course of a long, academically challenging semester. Not surprisingly, the responses provided by the design educators in this study confirm that challenge.

An important insight from interviews conducted in this study is that instructors can identify when students are engaged and not engaged but no one described engagement as multi-dimensional. During the interviews, participants were asked to describe when students were not engaged and when they are engaged. Responses to these questions were quick and blunt, ranging from the description of distracting behaviors such as being on their phones, sleeping, not coming to class, and not turning in assignments for students not engaged. They described the engaged student as someone who demonstrated passion, curiosity, concentration, and asked questions. A benefit of being able to identify when a student is less engaged and more engaged is that it challenges instructors to reflect on what are the contributing factors and dimensions and how the course or teaching approach can be improved or when their approach is working. Some factors are out of the instructor's control, such as what is

going on in a student's personal life beyond the course. However, what is happening in the course enables instructors to rework or introduce new methods in a way that increases engagement. This study shows that using place as a component of the course is a promising way for this to be accomplished.

The Impact of PBE on Student Engagement

Design education instructors described the impact of place-based education on student engagement as an educational approach that increases creativity and enhances students' designs. PBE fosters collaborative learning and enriches the educational experience by encouraging students to physically engage with learning environments. When instructors use PBE in their courses, it provides opportunities for additional collaboration with individuals beyond the classroom environment. Participants described this new form of collaboration as ranging from working with developing a design for a local organization, collaboration with students in other departments across campus, and learning from other teachers via classroom observations for art education students. These forms of collaboration, all of which incorporated place as a key element of the learning experience, had a positive impact on student engagement.

Instructors described the impact of PBE on student engagement as a way to challenge students to push their designs and produce higher-quality projects. When place was incorporated into projects, it created an additional layer of content for students to explore. For example, students could observe the details from their environment in a way that impacted their designs ranging from the materials that they

gathered to create a project to identify a location that would be documented as a subject. The exploration of place provides students with the opportunity to gather materials and imagery from the world around them in a way that could have not been accomplished in the traditional classroom environment. Giving students the ability to take on a more active role in exploring a location and environment for inspiration, increases creativity and enhanced students' designs.

Place-Based Education allowed students to physically engage with the learning environment and this physical interaction with space had a direct correlation with the behavioral dimension of engagement. When students are immersed in learning, there are fewer distractions, and they are more present in a moment of time. In contrast, study participants described distracted students as unengaged. When place becomes a component of learning, it creates an additional layer of real-world content for students to explore and interact with thus making them more engaged. This study shows that using place as a component of the course is a promising way for this to be accomplished.

Theoretical Implications

The theoretical frameworks from Experiential Learning (EL), Place-Based Education (PBE), and Student Engagement within a Design Education context guided the investigation of how and why design education instructors use Place-Based Education in their courses. Experiential learning is an active learning process where students are the creators of knowledge rather than the consumers of knowledge created by others. There are many forms and styles of EL. The findings from the study

demonstrate that PBE is a distinct form of EL that places an additional and unique emphasis on the local learning environment and acts as a moderator of the positive relationship between more traditional forms of EL and engagement.

PBE has only recently been studied as a unique construct separate from EL (Dyment, 2005; Gruenewald, 2003; Knapp, 2005). When place provides the context for learning, it is largely student-centered and can be enhanced by the local community environment. PBE is unique from EL and merits more attention as a unique predictor of engagement. PBE should be looked at separately because unlike EL, place-based learning uniquely, "adopts local environments – social, cultural, economic, political, and natural – as the context for a significant share of students' educational experiences" (Smith, 2002. p. 30).

The results from this study add to the larger body of knowledge in the field of art and design education in that there is limited research that investigates the role of PBE, particularly as it applies to the design process. Design education requires "the teaching of the history, thinking processes, purposes, and goals related to the aesthetics and function of creation of, products, systems and environments" (Zande, 2017, p. 18). Thus, the study serves as a resource for design educators who seek to enrich the learning environment in building course structures.

Design education is based on a problem-solving process of experiences, observations, and reflections. Solving design problems requires designers to engage in a process that involves new ideas, thinking, planning, rejections, and a correlation of points (Eggleston, 1992). The results of the study show that when instructors

incorporate place as part of the design process, concepts, materials, and levels of student engagement are enhanced. This finding is significant to design education instructors because instructors may be following the design process and incorporating place in that process, but without truly considering the use of PBE as a pedological strategy. Having a better understanding of PBE as an approach to learning can be a way to enhance students' learning experiences.

Practical Implications

Understanding of PBE

Having an increased understanding of PBE in general and how other design instructors incorporated place into their courses can enhance learning for students. Respondents in this study implemented place as a component of their teaching and learning strategies without an understanding of PBE as a formal pedological learning strategy. If instructors develop a more formal understanding of PBE, they may be better equipped to design learning experiences that increase student engagement. As discussed earlier, a broader understanding of location allows for the incorporation of place that goes beyond a physical environment to include the history, people, culture, and values of a particular community. If instructors have a better understanding of the resources that are available on campus and within local communities, place can more effectively be used in design courses.

Design educators who want to know more about using place in their courses can review the literature on PBE as well as review examples of how other design instructors integrate place into courses. Because PBE has the ability to uniquely

transform to local learning environments. Reviewing examples of PBE within a design context could serve as a starting point for the creation of new learning experiences. Instructors could then custom tailor the experience to the content and media that is being explored in their particular course and location of learning. This customization of content to individual courses also allows instructors to link one learning experience to the next and beyond. Thus, if instructors develop a more formal understanding of PBE as a way to enhance learning experiences. It could become a more predominant component of course structures.

Place and Course Structure

Once instructors identify a place or location they want to incorporate into their courses. It needs to be integrated into the course structure. This is accomplished by finding a way to fold place into the design process that is associated with an individual assignment or project. In addition to building place into individual assignments and projects making sure students are aware of the locations, they will be exploring in advance is critical. This is accomplished by establishing place-based components into the course structure before the start of the class. Thus, making students aware of how a place is a component of the course as a way to create variety in their overall learning experience.

Within design education, the majority of courses are project-based where instructors develop individual learning experiences that build off each other. A typical course is comprised of four to eight projects. If the projects can connect throughout the duration of the course and beyond, there is a greater chance of students becoming

more engaged with course content. This customization of content to individual courses also allows instructors to link one learning experience to the next. The data from this study shows that this scaffolding approach increases levels of student engagement. When projects create an opportunity for students to transfer skills from one learning experience to the next it creates an additional sense of value in the content they are learning. Enriching educational experience has been identified in the literature to have a direct relationship to increased student engagement (Coates, 2007; Kolb & Fry, 1975).

When instructors scaffold projects as part of the course structure, it creates a linear progression throughout courses that allow students to connect one learning experience to the next and beyond. The result is creating a meaningful and more engaging learning experience. In addition, when place becomes a component of the course structure, it gives the course variety and introduces students to how location can become a resource for enhancing future designs. One way to increase scaffolding beyond course content and into the real world; is through the incorporation of place by working with local community organizations to create a design for a "client."

Today's students want to understand the practicalities of the skills they are learning and why they are doing what they are doing. As opposed to instructors saying do this simply because it is part of the class if students understand the "why," and if the projects are scaffolded in a way that the knowledge for one project is applied to the next and beyond, the result is that students will have more incentive to invest in the projects. Such an approach is in line with the scholarly definition of engagement in

the literature "…the time and energy students devote to educationally sound activities inside and outside of the classroom" (Kuh, 2003, p. 25).

Understanding Student Engagement as Multi-Dimensional

Understanding student engagement as a multi-dimensional construct and not just an all-encompassing "blanket term." Could help instructors increase their ability to identify why students are engaged and unengaged as well as strategies for enhancing learning. Throughout this study when respondents talked about their courses and how the learning environment impacted students. It was easy for them to identify both the engaged and unengaged students. However, many of the nine participants in this study did not explicitly demonstrate a clear understanding of student engagement as a multi-dimensional construct. Thus, if instructors are more aware of the multi-dimensions of engagement, they can future increase their ability to, one better identify when a student is engaged and two craft learning experiences that activate the multi-dimensions. Current thinking and research suggest that student engagement is comprised of three dimensions: behavioral engagement, emotional engagement, and cognitive engagement (e.g., Finn, 1989; Fredricks, Blumenfeld & Paris 2004; Walker, Greene, & Mansell, 2006).

Having the ability to target these dimensions would allow instructors to make direct adjustments to project design and course structure. For example, if a project is not cognitively engaging the project design may not be challenging enough or too simple. Emotional engagement has a direct correlation to students having a sense of belonging providing students the opportunity to collaborate can help build a sense of

community in the classroom. Targeting behavioral engagement could be accomplished by ensuring students have a comprehensive understanding of a project. If they are confused, they simply may avoid involvement with a learning experience or not complete the project. Thus, engagement is critical to student success.

Today in higher education there is a significant focus on student engagement not solely because of the desired learning outcomes, but also because engagement is a central focus of colleges and universities' efforts to retain and recruit students. Students want and deserve to learn in engaging environments but often when instructors are encouraged to try and engage students in the classroom by academic leaders the term "engagement" feels more like a "blanket term" that at times disregards the multi-dimensionality of the engagement construct.

One practical strategy for activating the dimensions of engagement is through the use of place. Student engagement refers to students being actively involved in their learning tasks and activities (Marks, 2000). PBE requires students to play an active role in the learning process. The literature shows that active learning leads to higher student satisfaction and engagement than traditional lecture-based classroom learning (Pundak, Herscovitz, Shacham, & Wiser-Biton, 2009). Since the nature of PBE is inherently active structuring learning environments, to have a place component can enhance the dimensions of engagement.

Limitations

The findings of the study captured robust data in regarding to Place-Based Education and factors associated with student engagement in a design education context. This information will add to the larger body of literature on PBE while noting some limitations of the study. It was anticipated that due to the qualitative research design of the study and the phenomenological inquiry method the data collected in the research completely relied on the perceptions of the design educators interviewed as part of the study. Design education is a broad field of study that is comprised of the instruction of various disciplines. The participants interviewed in the study instructed a wide range of courses, but the study did not represent every discipline within the expansive field of design.

The sample of participants was nine design educators from Georgia colleges and universities. As part of the research design, there was an attempt to target instructors in all five distinct geographical regions of Georgia: Piedmont, Appalachian Plateau, Coastal Plain, Valley and Ridge and Blue Ridge. However only instructors from only the Coastal Plain Region and Piedmont Region participated in the study. When coding the data saturation was achieved, but an increased sample size that also included instructors from other geographic regions not represented could have resulted in additional insight as to how and why instructors use PBE in their courses.

Conducting the interviews via Zoom gave participants the flexibility to take part in the interview at a location and time of their convenience. However, there was no in-person contact with participants. In person, contact may have improved the raport

between researcher and participants during the interview and created more opportunities to physically collect additional artifacts related to the study. The final question for the interview was: How comfortable would you be in sharing some examples of relevant written documentation that pertains to the study such as course descriptions, syllabi, project briefs, and examples of past projects? Unfortunately, no participants in this study provided this additional information. A follow-up email was sent to participants reminding them of this request post-interview. Still, no respondents provided this additional information that would have helped triangulate the data.

This study did not capture the students' perspective. The focus of this study was to investigate the use of Place-Based Education (PBE), a pedagogical approach that takes learning outside the classroom into local environments (Knapp, 2005), by design education instructors in higher education. The data captured also provided a significant focus on student engagement. However, this focus on levels of student engagement was from the instructor's perspective and could not see into the minds of the students. Additional data captured from the student's perspective may have provided a greater understanding of PBE's impact on learning experiences. Also, the attitude of academic leadership towards the use of PBE by instructors or the community perspective was not included in this study.

Recommendations for Future Research

Many respondents implemented place as a component of learning without understanding PBE as a formal pedological learning strategy. Causing some instructors

to even reflect upon how they used place in their courses during the interviews. Expanding the sample population and data collection methods could be a way to enhance the findings of this phenomenon. Conducting interviews with instructors from additional design disciplines such as industrial design, art history and architecture would provide data on courses that were not mentioned in the study. These three disciplines, in particular, have strong ties to constructing and investigating designs that focus on a particular place, location, and interaction with people within that environment.

Collecting additional artifacts from respondents such as project descriptions would help triangulate the accuracy of the interview data. Proving a secondary source for information about the projects that were dispersed to the students within the courses that were instructed. In the future to accomplish this the recruitment email sent out to participants could have better expressed the importance of collecting this information. Respondents could have then had more formally agreed to the expectation of participating in the study they were required to also share written documentation of projects. Additionally, the following suggestions for future research could expand academic literature, examining how and why design educators use PBE in their courses:

The Students' Perspective on the Relationship Between PBE and Engagement

Although this study had a primary focus on Place-Based Education respondents provided robust data on their perceptions of student engagement was identified as a critical component for creating developing dynamic learning environments. To better

understand the relationships between PBE and student engagement a research design that focuses on the student perspective has the potential for generating additional data to add to the body of literature on both PBE and student engagement.

This could be accomplished using a quantitative research design that incorporates a validated survey instrument and manipulation of the independent variable, place. Burch et al. (2015) recently developed and validated a student engagement scale that measures overall engagement as well as dimensions of engagement: emotional engagement, physical engagement, cognitive engagement - in class, and cognitive engagement -out of class. Using a sample of undergraduate students enrolled in a design course. An additional study could manipulate the location of a learning activity to investigate if there are statistically significant differences in student engagement based on the location of the learning experience. (Place-Based vs. Classroom-Based).

An examination of this relationship is needed to better understand whether taking students out of the classroom and creating opportunities for unique experiences that are designed to excite and motivate them, has an impact on their level of engagement in learning. Unfortunately, in design education, there is little research that formally investigates this relationship generally, and in particular, no published research examines the relationship among PBE and the dimensions of engagement within a design education context. Capturing the student's perspective would allow for a greater understanding of the use of PBE in design education.

Enhancing this research to have data from both the instructors' and students' perspectives.

Academic Leaderships Attitudes Towards the Use of PBE in Design Courses

It was also identified by one instructor that they are required as part of their performance evaluation to create interactions with the community as a reason they use place in their courses. In addition, one other instructor stated that if their chair or academic leadership required them to incorporate place, then it would become more of an integrated component of their course. In addition, one other instructor stated that if their chair or academic leadership required them to incorporate place, then it would become more of an integrated component of their course. The phenomenological approach will allow for the investigation of the academic leadership's perspective. Data could be collected through structured participant interviews with a sample of Academic leaders working in higher education. Developing interview questions that focused on capturing academic leaders' understanding of PBE and how and why or why not they encourage faculty to incorporate PBE into courses would enhance this research.

Investigate how the Local Community can be Incorporated into Design Classes

Place-Based Education is a broad construct that goes beyond just physical location and environment to include the history, people, culture, and values of a particular community. Investigating what resources are available within a local community and the attitude of community members towards working with colleges and universities would enhance the overall research on the incorporation of PBE in

design education. Every community is unique and holds various resources. As part of this potential future research, the selection of geographical areas such as rural, urban, and coastal could be explored. This would allow for an expanded understanding of how place can enhance learning and be incorporated into design education courses that take place in locations that may share similar resources to the sites explored in the study.

This could be accomplished through a mixed methods research design comprised of naturalistic observation and phenomenological inquiry. This future research has the potential to result in data that both explores environmental resources within local communities and the perspective of community members. As part of the naturalistic observation component of the study people's behaviors in the environment in which it typically occurs could be investigated. For example, as part of this future research, the observation of how individuals typically interact with a coastal environment such as the beach could be investigated. This interaction with the environment could then be compared to how practical learning experiences and design education skills could be attained through students' interactions with that location.

For the phenomenological inquiry aspect of this future research that focuses on community, a purposeful sample of participants with skills and knowledge relevant to the field of design education could be interviewed. Potential questions could focus on their attitudes towards working with design students from higher education and the skills needed to become professional designers. Individuals could include local

business owners who operate within the design field or freelance artists and designers. This future research would provide data on ways to interact with the local community as a way to incorporate PBE in design courses.

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