

A Collective Case Study: Teacher Opinions of Their Students' Engagement in the Outdoor  
Classroom

Kristen Payne

Texas Christian University Science Education Masters Thesis

### Abstract

This collective case study prompted teachers to reflect on their students' engagement in the outdoor setting, and highlights the strengths and weaknesses of their experiences to identify how student engagement may be maximized in the outdoor setting to increase overall knowledge and understanding. Ten teachers were recruited from schools in partnership with REAL School Gardens non-profit organization. Data were collected through interviews using a semi-structured format and were audio recorded for analysis. Key terms and phrases that related to student engagement, as well as the outdoor settings were identified and used for creation of the word or phrase table. From here the author performed a cross-case analysis where common themes from the tables were detected as well as interpreted. Participating teachers found that overall their students seemed to be more engaged outdoors than indoors. This may have been because it was easier for teachers to identify outdoor engagement. While a positive view of the outdoors was consistent with all teachers, the reasons why were not the same.

## A Collective Case Study: Teacher Opinions of Their Students' Engagement in the Outdoor Classroom

### Chapter 1

#### Introduction

School systems in some ways are no different than the students who reside within them. With time and experience the systems grows, maturing with every year that passes. The systems are victimized by factors beyond their control, such a standardized tests, budget cuts, and time restrictions. The school systems also experience extreme trends, but rather than bell-bottom pants, and mini skirts, education has journaling workshops, goal setting, or 'brain based' education.

#### Statement of Problem

The idea of student engagement has been a recurring topic since the early 1980's, with work by Brophy (1983) and Natriello (1984) (as cited in Fredricks et al., 2011). However, the trend of student engagement became more than a fad, and instead an essential feature in the description of effective teaching. So much so, that as the trend grew the 2011 Issues and Answers, a series of articles reflecting current issues, released a report for the Institute of Educational Sciences (IES) addressing the difficulties of measuring student engagement. Not only has student engagement become an essential feature for every classroom, but now researchers are attempting to clearly identify engagement variables in order to experiment further with the topic.

Because student engagement does not have a single definition or cause, some researchers have focused on the avenues that may trigger engagement in certain students (Marks, 2000; Skinner & Belmont, 1993). Others have chosen to focus on student engagement and their environment (Fredricks, Blumenfeld, & Paris, 2004). An educational topic often linked to

classroom environments is outdoor education. Research suggests that students should be provided with authentic learning opportunities, in order to create a deeper connection with the material (Carrier, 2009). In many cases the outdoor classroom can provide the most authentic experience of all. Outdoor education provides the opportunity for students to connect with their environment while learning the curriculum required by their district. A prime example of a program currently strengthening the field of outdoor education is the non-profit organization REAL School Gardens.

### Background on REAL School Gardens

REAL School Gardens is a non-profit organization in North Texas. The organization's model involves integrating gardens as outdoor classrooms into elementary schools in the North Texas area. As of 2011 the organization has partnered with 81 schools, providing outdoor learning spaces for over 45,000 children in the North Texas area. Because teachers who lacked confidence in the outdoor classroom were less likely to take their class outside (Bloom, Holden, Sawey, & Weinburgh, 2010), REAL School Gardens developed a professional development for each new school's staff after they receive their garden. After creating a garden at each of these schools, the REAL School Gardens team assists the schools with the use of the outdoors by performing garden integration visits (GIVs) throughout each school year. Each school receives three GIVs per year. During which a REAL School Gardens educator, conducts a lesson based upon the current curriculum scope and sequence. As seen in research with similar settings to those created by REAL School Gardens, these schools have seen increased understanding of nutrition as well as increased motivation and interest in math and science with the implementation of outdoor learning spaces (Lineberger & Zajicek, 2000; Zoldosova & Pavol, 2006).

### Significance of the study

While there has been extensive research on student engagement and outdoor education (Dewey, 1903; Marks, 2000; Skinner & Belmont, 1993), there has yet to be a study that investigates teacher perceptions of the impact on engagement of children in the outdoors. This collective case study prompted teachers to reflect on their students' engagement in the outdoor setting, and highlights the strengths and weaknesses of their experiences to identify how student engagement may be maximized in the outdoor setting to increase overall knowledge and understanding. There are wide ranges of tools that have been developed to measure student engagement (Fredricks et al., 2011), however for the measurement of student engagement in the outdoor classroom, this study will use teacher reports by way of semi-structured interviews (Fredricks et al., 2011). The teacher has a unique advantage in that he/she has the opportunity to observe and posit the things that most greatly affect his/her classes' engagement (Sweet, Guthrie, & Ng, 1998). Furthermore, this investigation will provide qualitative data to the ongoing quantitative study by REAL School Gardens and PEER Associates regarding students' engagement in Math and Science in the outdoor classroom.

### Research question

This research investigates teachers' perceptions of student engagement in gardens. Specifically, the research question is, what are the perceptions of teachers who have experienced garden integration visits by REAL School Gardens educators, of their students' engagement in the outdoor classroom?

## Chapter 2

### Literature Review

#### Student Engagement

One way in which teachers gauge the comprehension taking place in their classroom is with student engagement. Student engagement is a multidimensional construct that is complex in nature and definition. Although definitions vary, most research agrees that student engagement involves some form of emotional engagement, behavioral engagement, and cognitive engagement (Fredricks, Blumenfeld, & Paris, 2004; Jimerson, Campos, & Greif, 2003). Emotional engagement refers to the students' connection or feelings toward school, teachers, peers, and lessons. Behavioral engagement is then the actions a student takes to display the emotions they are feeling. Behavioral engagement is often observable traits such as body language, participation, and task completion. Emotional and behavioral engagements tend to be visible in student demeanor or physical expression, cognitive engagement is more difficult to recognize due to its internal nature. Cognitive engagement is said to be the students' investment and enthusiasm in self, school, peers, and teachers (Fredricks, Blumenfeld, & Paris, 2004; Furlong & Christenson, 2008; Jimerson, Campos, & Greif, 2003). While the definition of engagement has been a topic of many studies, for the purpose of this case study the definition of student engagement will be left to the teachers to define. The focus of this study instead is on teacher perceptions of the relationship between student engagement and a particular environment, in this case the outdoor classroom.

Many teachers and researchers have come to focus on engagement because of the implications it has on other areas such as motivation, academic retention, alienation, attendance, and achievement (Skinner, Kindermann, & Furrer, 2009; Fredricks et al. 2011). With the

association of student engagement to these other areas, schools have begun including increases in student engagement as one of many reform efforts. Student engagement, while known to be valuable is not easily measured. One challenge educators have encountered is uncertainty in the availability and appropriateness of engagement measurement tools. Many instruments have been developed to assess the multifaceted construct at different levels. An up-to-date instrument review completed by Fredricks et al. (2011) described the 21 instruments currently available. The review describes three different categories of instruments defined by the method of data collection made possible by the tool. The three main ways that student engagement is currently being measured is with student self-report instruments, teacher report instruments, and observation instruments (Fredricks et al. 2011).

With teacher perceptions at the heart of this study, it is important to discuss the four teacher report instruments identified by Fredricks et al. (2011). Each of the teacher report instruments currently in circulation involve rating each individual student during the completion of a certain task. For example, the teacher walks around the outdoor classroom trying to quickly use the tool to measure the engagement of each student during their outdoor lesson. While the instruments currently available are not appropriate for the purposes of this experiment, teacher report as shown by the research is a valuable and valid method of data collection for student engagement (Fredricks, et al. 2011). Educators often target student engagement, because they feel it is an area they can aim to strength through their teaching strategies. One variable associated with the change in engagement has been classroom structure or classroom environment. According to a review of engagement literature by Fredricks, Blumenfeld, and Paris (2004), classroom structure is related to classroom management techniques, rules, and clarity of assignments.

### Teacher Perception

Teachers have a connection to their students unlike any other. For some children they may spend more time with their educators than with their parents or guardians. It is that very reason that this study weighs so heavily upon on teacher perceptions of engagement. Just as a parent can tell their child is sick by looking them in eye, an educator can often identify engagement in the same manner. Teacher perceptions have shown strength as a predictor of standardized test scores, frequency of success, and student self-determination (Sweet, Guthrie, & Ng, 1998; Wright & Wiese, 1988). There have also been accounts of consistency between teacher and student reports regarding behavioral engagement and achievement (Fredricks, Blumenfeld, & Paris, 2004).

While having teacher perceptions of student engagement outdoors will be meaningful in strengthening outdoor learning experiences, it has positive implications for teachers as well. Research has shown that teachers who are allowed time and experience to reflect on their students' engagement develop changes in their teaching strategies, activities, and environments to reflect their prior observations (Skinner & Belmont, 1993). This gain in perspective was the incentive for those teachers who chose to participate in the study.

### Outdoor Education

In 1903 John Dewey was already pleading for educators to leave behind their “organized machinery” and take learners outdoors.

“A catalogue of the agencies already available would include at least all of the following: Taking the child out of doors, widening and organizing his experience with reference to the world in which he lives; nature study when pursued as a vital observation



of forces working under their natural conditions, plants and animals growing in their own homes, instead of mere discussion of dead specimens. We have also school gardens, the introduction of elementary agriculture, and more especially of horticulture-a movement that is already making great head-way in many of the western states” (p.202).

While Dewey addressed the lack of authenticity in the school place, the problem has only amplified since then. Outdoor education has to begin with a commitment from the teacher to take their classes outside. According to Ferry (1995) and Simmons (1998) when interviewed individually, teachers identify comparable benefits and challenges in educating their students in various outdoor settings (as cited in Carrier, 2009). Some of the common challenges have been identified as time, weather, management, and administrative disapproval (Bloom, Holden, Sawey, & Weinburgh, 2010). Fortunately the same study showed that of those teachers who had identified their challenges with educating outdoors, some were now able to admit to their fears and discuss solutions to overcome them. For educators, discussion and familiarity with the outdoors increases the chance of its integration into their lessons. When conducting pre service teacher events often times there are several educators who will openly admit to their discomfort in being outdoors. Most however will comment on the change in their opinion of the outdoor setting by simply becoming more familiar with the surroundings and learning ways to introduce their students to related curriculum outside (Carrier, 2009).

When educators are willing to use the outdoor classroom the possibilities for authentic lessons, connection of prior learning, and promoting healthy lifestyles are endless. Studies have shown that not only outdoor education, but informal educational in general where students are given the opportunity to interact with the natural world will generate some form of learning (Dewey, 1903, Rammey-Gassert, 1997; Zoldosova, & Pavol, 2006). The article by Rammey-

Gassert (1997) goes on to paraphrase Resnick (1987) as saying, “Out-of-school learning more commonly involves the accomplishment of an intellectual or physical task by a group that is interacting using real elements, which allows learning to take on greater meaning” (p.434).

Again, the importance lies in the authenticity, which the outdoor setting embodies.

When teachers are able to make these real connections between concepts and the lives of their students, they are igniting an interest that has been described as cognitive engagement. An article about a field education program was able to state that at the end of their study the students had increased interests and ideas about science education (Zoldosova & Pavol, 2006). If outdoor education is spurring the intrinsic motivation in students' interests to learn, then it is a form of education worth implementing. If interest in science is not enough, outdoor classrooms such as the ones resembling those created by REAL School Gardens have also been tied to increased student knowledge of nutrition and healthy life styles (Lineberge & Zajicek, 2000; Gruenewald, 2003). Through planting and harvesting produce, as well as having nutrition lessons some children have even increased their preferences in fruits and vegetables helping their dietary habits (Morris & Zidenberg-Cheer, 2002). The positive impacts of outdoor education are apparent, whether or not student engagement is one of them is what we aim to discover.

## Chapter 3

## Methodology

## Research Questions

What are the perceptions teachers who have experienced garden integration visits by REAL School Gardens educators, of their students' engagement in the outdoor classroom?

## Research Design

## Context

The author worked as an intern for REAL School Gardens as part of her Education in Science Masters Program. Through the internship the author was able to obtain schedules for the GIVs at each school. Contact information for the teachers receiving the training was made available with the connection as well. All schools from which the teachers were selected are in a partnership with the non-profit organization REAL School Gardens. Most of the gardens created by the organization have similar components and therefore should help eliminate bias as far as garden quality. There was still some variability due to garden maintenance and extra components added by the schools individually.

## Recruitment

The study participants were recruited using a purposive sampling technique. Ten teachers from four school districts in the North Texas area were selected. All schools are public elementary schools that serve grades pre-kindergarten through 5<sup>th</sup> grade. Participants were not selected based on time spent in the garden, allowing for variability in experience to emerge. All participants have experienced taking their class to the outdoor classroom during a GIV where they have had the opportunity to observe their students engagement, while a REAL School Gardens educator conducts a lesson.

Every elementary school in a partnership with REAL School Gardens is provided with up to three garden integration visits per year. As each school signed up for their GIV, the school name was added to a list used to recruit teachers. Then the list was reduced to only those teachers of fourth and fifth grade. Several of the schools had also committed to taking an additional survey for REAL School Gardens, about their prior experiences with the program. If one of the teachers from the GIV list of fourth and fifth grade teachers completed the survey, they were added to the contact list. The survey served no other purpose other than being an indicator of which teachers may have been willing to share their thoughts (whether they be negative or positive) about their students' experiences outdoors, however of those teachers contacted only one agreed to participate in the study.

After these teachers experienced their GIV, and completed the REAL School Gardens survey they received the recruitment email provided. When the teachers responded to the email, they were asked to complete a consent form, media release (provided) and scheduled an interview date, at their time and convince. By having the participants select their interview setting, the participants were more comfortable in sharing their opinions regarding their students' engagement.

Two of the ten participating teachers were recruited at the site of the interview by the snowballing effect. On two instances, while waiting to conduct a previously scheduled interview, other faculty who had heard of the study approached the researcher. In both cases teachers offered to give their opinions of their students' engagement outdoors as well. After conducting the scheduled interview, each of these teachers signed consent documents and participated in interviews.

Participants

Of the selected participants eight were female and two were male. Their teaching experience varied from two through twenty years experience teaching in the classroom. These teachers taught some combination of science, social studies, language arts, reading, writing, or math. Some of teachers taught all subjects, while one participant taught only one subject. Teachers' class sizes were in a range from 17 to 22 students at a time, and of the ten participating teachers, three taught grade four, six taught grade 5, and 1 taught pre-kindergarten. The initial intention of the study was to interview only 4<sup>th</sup> and 5<sup>th</sup> grade teachers, however with the snowball affect the pre-kindergarten teacher was asked to participate, and later showed to have consistent data with the 4<sup>th</sup> and 5<sup>th</sup> grade educators. No more than two teachers were from the same school, and the ages of the school's outdoor classrooms were reported as being from two to nearly twelve years in age. All participating teachers had experiences a GIV and seven of the ten teachers had attended a REAL School Gardens' professional development on integrating the outdoor classroom into their curriculum.

#### Data Collection

Data were collected through interviews using a semi-structured format. The questions used during the interview are provided in the appendix. The interviews were be between 10 and 30 minutes in length and were audio recorded for analysis. Each teacher was interviewed one time, after which the audio recording of the interview was uploaded to a password protected hard drive where it remained until it was transcribed. All participation was voluntary and incentive free.

#### Data Analysis

The audio recordings of the interviews were transcribed into typed word documents both by hand, and using the online transcription program Way With Words. After the transcriptions were completed the author reviewed the documents for any misconceptions during the transcription process, as well as removing any possible identifying features of the data. For each case the author performed a within-case analysis, using a word or phrase table as suggested by Yin (2003) (as cited in Creswell, 2007). The author manually coded the data for trending words or phrases within the documents. The word or phrase table allowed the author to create a display of the data from each case in a uniform framework. Key terms and phrases that related to student engagement, as well as the outdoor settings were indentified and used for creation of the word or phrase table. From here the author performed a cross-case analysis where common themes from the tables were detected as well as interpreted (Creswell, 2007).

## Chapter 4

### Results

Throughout the course of three months teachers were identified, recruited, and interviewed by the researcher. Each interview took place at the school in which the teacher taught, and was scheduled at a time most convenient and non-disruptive for the teacher. After the interviews were completed they were transcribed into typed word documents for revision and analysis.

The analysis of the data was done through manual coding of words and phrases throughout each transcript. The author identified all terms delivered by participants related to both student engagement and outdoor education. After listing all terms, those that were closely related were grouped and labeled based on their context. The terms seemed to have been divided into two larger clusters, which could be identified as teacher references to Indoor vs. Outdoor variables. These groupings can be tied to the initial interview questions that were designed to gather both indoor and outdoor engagement information.

#### Indoor Engagement

The data from the participating teachers displayed four categories that the teachers associated with their students' indoor engagement. Active listening was the most frequently referred to phrase when discussing engagement as a whole, as well as indoors. The other indoor engagement phrases used by multiple participants were group work, questions relating to misunderstanding and lack of attention.

#### Active Listening

When discussing engagement as a whole, nine of the ten participating teachers referred to some form of active listening as an indicator that their students were engaged. Active listening

for this study included eye contact, probing questions, accountable talk, student summaries, student responses, seating, stillness of the body, and appropriate use of educational instruments. Some of the teachers categorized the behavior themselves within their interviews, while other used their own terms to refer to some form of attentive behavior.

I introduce an active listening rubric, and what listening looks like, because a lot of them don't know how to listen. So, what does active listening look like? You're making eye contact. You're thinking about what's being said. Do you agree? Do you disagree? And a possible response if you're called upon (Part501).

Leaning forward. All of the body language that shows that they are excited about what they're learning (Part506).

It was evident from the interviews that most teachers had expectations regarding active listening, and the role it played in the classroom. Each teacher varied slightly in his/her response but made it clear that some form of active listening was built into the classroom structure. While almost all of the participating teachers identified eye contact as a way to recognize their students' engagement, one teacher made a statement that discussed eye contact being her preference but not necessarily an accurate indicator.

Well, I know personally that I like people to look at me because that makes me feel like they're listening to me, but that doesn't mean they are listening to me... I have a boy who's 17. He doesn't listen very well when he's staring at somebody. Like, he can look at somebody and learn nothing... He likes to look down, he's taking notes, and making doodles and things (Part509).



This statement, which was so dissimilar to the others, made it more impactful in the context of the research. Eight of the ten participants stated eye contact lead them believe their students were engaged. One of the ten argued that eye contact, while validating teacher confidence, was not an accurate indicator of engagement in her students.

#### Lack of Attention

While most participating teachers avidly identified active listening as an indicator of student engagement, they also disclosed their students' frequent lack of attention if they were not engaged in their indoor activities. Included in these descriptions of students whom were disinterested included looking around the room, digging in their desks, drawing pictures, drumming on the desks, and completing assignments for other classes. Teachers related these behaviors to student confinement in their desks, struggling with instructions, trouble focusing or engaging in the task.

I mean obviously a lot of times you see kids wandering around, looking around and spacing off, or playing with something under the desk, and I try to make my way over there.... (I notice) Twitching, drumming pencils, picking at their shoes, ripping at hang nails, ripping at scabs, picking noses...(Part503).

The statement above shows how frequent and common it is for students to show signs of their disengagement indoors. Some of the participants discussed their physical proximity to the students, as did the teacher above. The transcripts showed that when teachers walked, stood, or sat closer to their students they felt their engagement increased. The problem is that with classes including 17 to 21 students, teachers can not be right next to their students at all times, therefore engagement in the material or activity itself is extremely important to ensure all students are benefiting from the experience.

### Group Work

Closely related to proximity between teacher and student, was the information provided regarding student seating during indoor lessons. Several teachers discussed the importance that their seating arrangements played in the engagement of their students. Of the ten classrooms visited only one had the desks arranged in a linear, row-like fashion. All other nine classrooms had some formation of grouped desks, or rectangular tables that students used on a daily basis.

Typically I have them in groups just so that they can interact with each other, instead of having them all face the front of the room (Part502).

I especially like to have the kids working together in groups where each one of the children has their own particular job to do within the group. There's one person who records the information, the person who is the leader of the group, the person who is the clean-up person, so that each one had their own job and the job is rotated so they don't always have the same job, but they all learn how to do each of the jobs (Part410).

Although group work was a topic that appeared frequently while discussing indoor engagement, the teachers' perceptions varied. While most agreed that they felt the students benefited from working together, they identified some struggles with indoor group work such as, lack of space, lack of materials, conflicts between peers, and off topic discussions. While some of these issues reflect classroom management issues, others such as space and materials could be potentially solved outdoors.

### Questions Related to Misunderstanding

The final finding related to indoor engagement was one that was highly unexpected. Within the interview guide there is a series of prompts for the participating teachers regarding

the questions that their students pose when they are engaged in the material. The question was designed to see whether or not teachers saw deeper, more meaningful questions when their students were highly engaged in the material. The results, however, showed that nearly all of the participating teachers associated student questioning with student misunderstanding. Rather than seeing questions as a sign of engagement, the teachers reported just the opposite.

If one or two are asking things, then I usually think they weren't paying attention...If you get through giving an assignment and you've got five or six up here saying, "Now what do I do?" or "how do I do?" Go sit down. It's time to start again (Part505).

I have a few kids that I think do have deeper questions and wonderings beyond what we have covered. But I think a lot of them, the majority of them, (the question) is just what I just finished saying, and then they ask the same thing...It might be from misunderstanding or maybe they weren't engaged and didn't get it the first time? But I get a lot of those (Part503).

It appears as if the majority of teachers view questions from their students as a sign that they do not understand or were not paying attention to the assignment. While it was not common, one teacher did view the question in the way it was designed.

I'll get a lot of that, particularly in science, where the kids will want to share their experience with the subject that we're talking about, or they'll ask for more information (Part506).

While the questions designed did not always elicit the intended responses, they did deliver valuable, and replicated results. The participating teachers expressed their perceptions of

the impact active listening, lack of attention, group work, and student questions play in their students' engagement indoors.

### Outdoors

The intent of this study was to determine teachers' perceptions of their students' engagement outdoors. In order to verify the distinctions between the teachers' views of indoor and outdoor engagement, interviews questions focused on each individually. Conversations regarding indoor engagement were found to be insightful with the four common topics previously identified. The dialogue on outdoor engagement had many reoccurring themes labeled by the researcher as setting expectations, quality of work, change in scenery, physical freedom, students with learning or behavioral difficulties, real-life connections, teacher influence, and weather influence. All of the areas above were identified by no less than four of the participating teachers during their interviews. These identified commonalities among teachers' perceptions were most impactful for the study, but do not include all teacher experiences with their students' outdoor engagement.

### Setting Expectations

The interview transcriptions undoubtedly had areas where teachers struggled to communicate their views and experiences. This was not the case when it came to participating teachers' strong opinions regarding setting expectations and the role this played in student engagement outdoor. Several teachers expressed how crucial setting expectations were to keeping their students engaged in lessons outdoors.

You have to set the expectation. That definitely has to be done. The foundation has to be laid. Once they have that, they understand when you refer to

it as the outdoor classroom. You don't say we're going outside today, so that it doesn't sound like its recess (Part501).

Well, I've been outside, with my own class, they tend to be fine outdoors, but I set that expectation at the beginning of the year, and I make rules for the garden.... But I've been outside with other classes that don't visit the garden as often, and they don't have those rules set, and so, you know, those students tend to be more distracted...(PartPK08).

The second example of setting expectations lends itself to a topic that was discussed by the teachers when they mentioned expectations and outdoor rules. Most teachers closely linked a lack of expectations with opportunities for their students become off task. While the outdoor classroom lends itself as teaching tool, teachers' identified the need to maintain expectations and rules with their students to increase engagement.

#### Quality of Student Work

The participating teachers also expressed observations of increases in the quality of their students' work when learning outdoors. Many of the teachers who expressed this view were those who taught some form of language arts and writing. They described the difficulties they had encountered trying to motivate their students during abstract writing concepts indoors, and the change they noticed when moving the assignment to the outdoor classroom.

Their writing seemed better. They were given a prompt by the REAL School Gardens educator to write about what they saw, or what they felt, or whatever was outdoors, and it seemed like they had a lot more to say then when I say just write about a time when you were scared...they are definitely more aware

of their surroundings and can pull different things that they see to add into their writing (Part502).

For writing there are a few things that being out there will lend itself well to. Like descriptive writing, sometimes being in the classroom, kids just aren't as imaginative, or they just don't think of a lot of things. But when we go out there to the garden we can try different activities. They will pick different plants, and describe them as well as they can, and they switch off, and you have to try and pick which plant they were talking about based on their description (Part503).

While the teachers' noticed the quality of their students' work becoming better, they also observed the students self-efficacy increasing along with it.

But when we first did it (created the garden), it was really cool, because we had the kids out here measuring it all. They had to be the ones...you know, here's the area, now here's the graph paper. How are we going to lay this out?...They felt they owned it, you know? Because they designed it (Part505).

The students' feelings of ownership and pride in the garden were not only examples of observed engagement for the participating teachers, but were also valued experiences because they were watching students believe in themselves and their capabilities.

#### Change in Scenery

While analyzing the interview transcriptions, certain words triggered researchers to more carefully comb through the following statements for information. One of these triggering words was 'change'. When the teachers spoke of change they were often referring to a unique experience outdoors. This was the case with teachers' perceptions of their students seeing the garden as a change in scenery.

I think the benefit is that they don't normally get to go out there as often, so when we go out there they look at it as a treat and they get excited. They like just being outside of the classroom. I don't see any drawbacks, just excitement of going somewhere else, and doing something different. They are breaking the routine (Part503).

It's different. Something different. It's something that they know that not all schools have (an outdoor classroom), and we get to go out to our garden, and we can write, we can read, we can do science stuff, we can pick vegetables, we can water the flowers (Part407).

The change in scenery was related to student engagement as well as the previously discussed theme of ownership and pride. The teachers saw their students not only enjoying the change the outdoor classroom brought to their daily routine, but also as something that made their school unique and special.

#### Physical Freedom

Within the discussions of teachers about their students outdoors, nearly everyone mentioned the physicality involved with being outdoors. Some teachers spoke of the hands on learning opportunities that had engaged their tactile learners. Others relayed their experiences with students becoming more relaxed outdoors, and becoming 'comfortable' with the lessons. Finally a few mentioned how their students welcomed the opportunity to break free from the restrictions of their seats, the four walls of their classroom, and valued the space outdoors.

I would call it the kinesthetic student; the student who is able to touch and feel and move and see, and they do very definitely learn it better outside (Part410).

The students are much more relaxed. They're not as rigid. Those that are tending to hide and be shy are freer. You know, they loosen up. They feel safer to take risks outdoors (Part501).

I think too just the not sitting in the desk, it's not as constricting to them. When they are in the desk that's when you get the drumming, the picking, the drawing on the table and the desk. It's kind of like when they get to lounge around in here, but the only problem is that it gets a little cramped in here because I don't have enough space. So when we do go outside, someone will be sitting on a rock, or laying on the floor, or on the grass, and they kind of get cozy, and they get into the assignment (Part503).

The teachers' perceptions portrayed a level of comfort that their student's had when they were in their outdoor classroom, that they did not when indoors. When discussing their students' physical experiences outdoors, the teachers' descriptions contained more references to feelings and emotions than most of the other topics brought to light throughout their interviews.

#### Students with Learning and Behavioral Difficulties

Through the guided interview questions, participating teachers were asked if there were any student engagement that they felt especially benefited from the use of the outdoor classroom. The three main groups of students who were identified as benefiting most from the outdoor lessons were student's with some form of language or writing deficiency, student's with ADHD, and student's with behavioral difficulties.

Those that have issues with written language, or may not be as fluent with the academic language...Or students that have problems making connections with prior learning...So that's a differentiated approach to provide the same content



age, grade level instruction, but it's just, you know a different method of presentation (Part501).

Some of our kids that are ADHD do better outside because they can get up and move around. It's not such a structured place to sit down and do your work (Part502).

I taught a behavioral class and I taught a resource class, those kids weren't getting (to go outside). So we went outside a lot because they would get real tuned in and I thought it was really good... They're people that other people are afraid to take outside because they're afraid they might run, but it was like a reward, and they just liked it a lot and they learned a lot (Part509).

Most of these same teachers emphasized through their interviews that these student's previously identified were not the only ones to benefit from the outdoor classroom, instead they were the ones whose engagement seemed to gain the most.

#### Real-Life Connections

More than half of the interview transcripts had references to the real-life scenarios that the outdoor classroom presented to the students. Some participating teachers even found themselves going beyond the required curriculum, into further details because of the questions and connections the outdoor setting presented.

They've seen the life cycle of the butterfly, as opposed to looking at a book in the classroom, it's actually real, they can touch it, and see the different colors of different chrysalises, things like that, and then they see the different plants, and so their questions are more like, "What kind of plant is this?" and

“Why is this chrysalis green, and this ones brown?” Just whatever they might be observing out there (PartPK08).

These real-life situations were even used to increase engagement and interest with an indoor lesson. One participant used the weather outdoors as way to help the student's understand the context of the story they were reading.

The reason that story was important for outside, as you can see, is because a little girl gets caught in a blizzard, and it was super cold, and we wanted it. We wanted to be out there in the cold. We wanted to feel it (Part404).

The participating teachers expressed the value that comes with being able to see their students engaged in their assignments, because they are able to make further connections using the outdoor classroom.

#### Teacher Influence

While not as directly linked with student engagement, a comment made by teachers was the influence that their personal preference of being outdoors makes on the experience. The participants did not hesitate in sharing their love being outdoors, and the role it played on the quality of their students' time outdoors.

If I can go outside, I will be outside (Part509).

I'm an outdoor person, so I like going outside, you know, when the weather is nice (Part505).

Well I like to be outside too, so that's a benefit (Part502).

I like the outdoors, so that's no problem for me. But there are some teachers would rather, I don't know, pay taxes than go outside (Part501).

It was clear through the transcription comments that the teacher's interviewed felt that their feeling towards being outdoors influenced their classes' experiences. Moreover, without their willingness to practice this strategy of differentiated delivery by using the outdoors the student's would not have the opportunity to use this educational setting.

#### Weather

Finally, a theme that was highly addressed was the impact the weather played on students' engagement outdoors. Teacher opinions of this topic were not varied in that their use of the outdoor setting was incredibly hindered by rain, snow, high winds, and extremely high or low temperatures.

The only drawback is sometimes the weather. Obviously when it's cold, or rainy, but sometimes the wind is a big pain in the butt. If they are trying to write something and the pencils are flying around (Part503).

The only thing is, we were reading this story, and we wanted to go read it outside yesterday, but it was pouring down rain. So I have to be flexible (Part404).

You know there are days that, like right now, it's been cold, so you can't always go (Part407).

When analyzing participating teacher interviews it became clear through the resulting categories, that many different factors compile student engagement in the minds of their teachers. Everything from classroom procedures, student seating, and changing scenery were identified as common ways teacher's felt they used different settings to manipulate engagement. The teacher's also pointed out themes such as types of students who benefit most from being outside, as well as the opportunities for increased physical freedom and real-life connections that

the outdoors can provide. All of these and more were the teachers' perceptions about their students' engagement and those things that impacted it most.

## Chapter 5

## Discussion

The purpose of this study was to determine the perceptions of their students' engagement in the outdoor classroom for teachers who have experienced garden integration visits by REAL School Gardens' educators. Through semi-structured interviews conducted with the ten participating teachers, data were compiled to determine what perceptions were most common regarding student engagement in both the indoor and outdoor setting. Research tells us that engagement is a complex, multifaceted concept that at a minimum is comprised of three main categories, so why is it that when interviewing teachers they most commonly identified student engagement indoors with behavioral aspects rather than emotional or cognitive themes (Fredricks, Blumenfeld, & Paris, 2004; Furlong & Christenson, 2008; Jimerson, Campos, & Greif, 2003)?

## Indoor Engagement

Previous literature describes the three subcategories of engagement as behavioral, emotional, and cognitive engagement. Every theme that has emerged through teacher interviews can be categorized within the three sections of engagement. The first three themes (active listening, lack of attention, and group work) can be categorized as observable traits such as body language, participation, and task completion. Results have shown that teachers use observable clues related to behavior in order determine if their students are engaged. The fourth theme of teachers' perceiving their students questions to be misunderstanding the information, can be categorized as cognitive engagement. Cognitive engagement is said to be the students' investment and enthusiasm in self, school, peers, and teachers. Therefore, rather than identifying questions as a further investment by their students into their material, participating teachers'

viewed their students' questions as again being related strictly with their observable behavior (Fredricks, Blumenfeld, & Paris, 2004; Furlong & Christenson, 2008; Jimerson, Campos, & Greif, 2003).

### Outdoor Engagement

There were twice as many resulting themes from questions about students' engagement outdoors. These themes were setting expectations, quality of work, change in scenery, physical freedom, learning or behavioral difficulties, real-life connections, teacher influence, and weather influence. While some of these themes address behavioral engagement such as weather influence, physical freedom, and setting expectations, there are others that fall within the other two categories of engagement. Rather than behavioral engagement being a directly observable student action, as it was indoors, behavioral engagement outdoors is associated with the outdoor factors that the teachers' felt influenced their students. Indoors the observed themes were describing what was needed from the students, and how its absence resulted negatively, such as the students' active listening or the students' lack of attention. Outdoors the focus is on variables themselves that influence the students. For example, outdoors teachers' observations of behavioral engagement focused on the influence of weather that the outdoor classroom presented, or the physical freedom it provided for the students. While still relating to behavior, the teachers were able to identify other factors that contributed to their students' behavioral engagement that were beyond the control of the students themselves.

Teacher descriptions of students' reactions to change in scenery, students with educational difficulties, real-life connections, and teachers influence all reflected the emotional component of the engaged learner. Emotional engagement is most frequently seen as students' connection or feelings toward school, teachers, peers, and lessons (Fredricks, Blumenfeld, &

Paris, 2004; Furlong & Christenson, 2008; Jimerson, Campos, & Greif, 2003). When discussing the outdoors, the teachers' began to describe themes that were deeper than fidgeting, and talking. They began to discuss students' feelings of worth, pride, and reward. The outdoor classroom was perceived as engaging students on a new level. Research has shown that by appealing to more than one area of engagement, students are more likely to show increased motivation and interest in what they are learning (Skinner, Kindermann, & Furrer, 2009).

The real-life connection the students felt when outdoors was not only emotionally motivating for the students, but also cognitively motivating because it was now applicable, real, something they could see, bringing a new found enthusiasm to their learning (Fredricks, Blumenfeld, & Paris, 2004; Furlong & Christenson, 2008; Jimerson, Campos, & Greif, 2003). Through their interviews, several teachers' discussed an increase in the quality of work done outdoors by their students. Better quality work can be associated with more dedication or investment to each assignment. This investment from the students is the key to cognitive engagement and was clearly identified by participating teachers.

The outdoor setting provided teachers with opportunities to see each aspect of their students' engagement rather than focusing on a single facet. As previously mentioned, research has shown that when teachers reflect on their students' engagement, they develop changes in their teaching strategies, activities, and environments to reflect their prior observations (Skinner & Belmont, 1993). While the outdoor classroom obviously brought to light for the teachers the different ways in which students' are engaged in the material, it may have been simultaneously increasing overall student engagement and motivation in teachers. The current beneficiaries of this study are the participating teachers and their students however, further research has the potential to benefit service providers such as REAL School Gardens, in-service teachers, pre-

service teachers, administrators, and others who maybe interested in perceived engagement of students in the outdoor classroom. These individuals could potentially use this information to take their students outdoors, provide outdoor professional development, or integrating a school garden onto a campus, all for the common goal of increasing student engagement.

Participating teachers found that overall their students seemed to be more engaged outdoors than indoors. This may have been because it was easier for teachers to identify outdoor engagement. While a positive view of the outdoors was consistent with all teachers, the reasons why were not the same.

Half of the participants saw the outdoor classroom as a setting. They saw value in the extra space, the change in scenery, the positive attitudes of their students, and relaxation it brought for all. The other half saw the outdoor classroom as a tool, another method for enhancing the learning and understanding of their students. For example, some of the teachers said that when the class was stressed or restless, they would take them outside. Others, used the outdoors to model abstract concepts when description or textbook photos were not enough. Both groups found the outdoor classroom valuable, but in very different ways. The problem with viewing the outdoor classroom as a unique setting is that it is no different than going to the library, the cafeteria, or the gymnasium. This subset of participating teachers' saw increased engagement of their students, but the engagement may not be linked to the outdoor classroom itself but instead a relaxing of the mind in order to begin another task.

Some research states that the value of the outdoor classroom lies within its ability to provide an authentic context for learning (Dewey, 1903).

For instance, lately we've been studying different types of clouds, and they've been wanting to know more about that, so today was a perfect day. I



noticed on the way to work that there were some stratus clouds up and that there were some cirrus clouds up, as well, and so we did go to the outdoor learning area and took a look at that (Part506).

However, the real importance lies in the learning and success of the students.

From the results of this study it seems that can be accomplished by using the outdoors as both a setting and instructional tool, depending on student, teacher, or situation.

#### Limitations

Although the resulting themes identified through interviews could be categorized within the three areas of engagement, it may have been helpful if a broad definition of student engagement was provided for the teachers. While the information provided by participating teachers was extremely valuable, it became clear early on that each teacher might have had different definitions of engagement. However, the fear that this varied view of engagement would hinder results was calmed as data analysis showed that the teachers' still identified the same contributing factors to their varied definitions of engagement.

The other limiting factor was the number of participating teachers. The validity of the study would increase with an increase in the number of teachers. It was much more difficult to recruit teachers' to participate than anticipated. All recruiting was done informally by email, and may have been more successful if recruiting was done face to face. Those teachers that did participate vary widely in their usage of the outdoor classroom, however all of those who participated identified themselves within their interviews as people who enjoy being outdoors. For future studies it would be beneficial to increase the number of participants, as well as trying to recruit teachers who identify themselves as not enjoying the outdoors, to determine whether or

not their perceptions of their students' engagement outdoors is different than those teachers who participated in this study.

### Implications

The results and discussion show that teachers were able to more easily identify varied aspects of their students' engagement outdoors, and overall they found their students' to be more engaged outdoors than indoors. The outdoor classroom was used both as change in setting as well as an instructional tool. When deciding whether or not to incorporate the outdoor setting into their lessons teachers should consider a number of things. Teachers should determine whether they plan to use the outdoors as a setting or as an instructional tool for their students. They should also reflect on their students' personalities and educational challenges in determining what expectations they should create in order to keep their students on task. Teachers should consider their experience with the outdoors, as well as the weather during a particular lesson. Finally, teachers should establish what they hope for their students to gain by reflecting on all the possibilities the outdoor classroom has to offer.

## References

- Bloom, M. A., Holden, M., Sawey, A. T., & Weinburgh, M. H. (2010). Promoting the use of outdoor learning spaces by k-12 inservice science teachers through an outdoor professional development experience. In A. Bodzin, B. Klein, and S. Weaver (Eds.). *The inclusion of environmental education in science teacher education* (pp.97-110). Springer Science Business Media B.V. Publications.
- Carrier, S. J. (2009). The effects of outdoor science lessons with elementary school students on preservice teachers' self-efficacy. *Journal of Elementary Science Education*, 21(2), 35-48.
- Creswell, J. W. (2007). *Qualitative inquiry & research design, choosing among five approaches*. (Second ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Dewey, J. (1903). Democracy in education. *The Elementary School Teacher*, 4(4), 193-204.
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59-109.
- Fredricks, J., McColskey, W., Meli, J., Mordica, J., Montrosse, B., & Mooney, K. (2011). *Measuring student engagement in upper elementary through high school: a description of 21 instruments*. (Issues & Answers Report, REL 2011–No. 098). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southeast. See <http://ies.ed.gov/ncee/edlabs>
- Furlong, M. J., & Christenson, S. L. (2008). Engaging students at school and with learning: A relevant construct for all students. *Psychology in the Schools*, 45(5), 365-368. DOI: 10.1002/pits.20302.

- Gruenewald, D. A. (2003). Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal*, 40(3), 619-654.
- Jimerson, S. R., Campos, E., & Greif, J. (2003). Toward an understanding of definitions and measures of school engagement and related terms. *The California School Psychologist*, 8, 7-27.
- Lineberger, S. E., & Zajicek, J. M. (2000). School gardens: can a hands-on teaching tool affect students' attitudes and behaviors regarding fruit and vegetables? *Hort Technology*, 10(3), 593-597.
- Marks, H. M. (2000). Student engagement in instructional activity: Patterns in elementary, middle, and high school years. *American Educational Research Journal*, 37(1), 153-184.
- Morris, J. L., & Zindenberg-Cheer, S. (2002). Garden-enhanced nutrition curriculum improves fourth-grade school children's knowledge of nutrition and preferences for some vegetables. *Journal of the American Dietetic Association*, 102(1), 91-93.
- Ramey-Gassert, L., (1997). Learning science beyond the classroom. *The Elementary School Journal*, 97(4), 433-450. Retrieved from <http://www.jstor.org/stable/10002356>
- Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology*, 85(4) 571-581.
- Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2009) A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement*, 69(3), 493-525.

Sweet, A. P., Guthrie, J. T., & Ng, M. M. (1998). Teacher perceptions and student reading motivation. *Journal of Educational Psychology*, 90(2), 210-223.

Wright, D., & Wiese, M. J. (1988). Teacher judgment in student evaluation: A comparison of grading methods. *The Journal of Educational Research*, 82(1), 10-14.

Zoldosova, K., & Pavol, P. (2006). Education in the field influences children's ideas and interest toward science. *Journal of Science Education and Technology*, 15(3/4), 304-313.

## Appendix A

## Teacher Interview Guide

## Profile Questions:

Teacher's Gender:

Subjects Taught:

Years Teaching Experience:

Grade Level Taught:

Average Number of Students Per Class:

Time school has had with Outdoor Classroom:

Number of RSG PDs attended:

Number of GIVs experienced with RSG staff:

1. How would you describe your students' typical engagement during a lesson in the indoor classroom?
  - (a) In order to better understand your viewpoint, what would the typical indoor class look like?
  - (b) From previous lessons with your class, how do you know when your students are actively listening to the instructions they are being given? Do they act or behave in a certain way?
  - (c) What are your students physically doing during these lessons? Do they display a certain type of body language? How much movement do they exhibit during lessons? Do you associate any of their physical activity with how engaged they are in the lesson?
  - (d) From your experience, what type of questions or comments do your students ask or make during these lessons? How would you gauge your students understanding of the lesson through these questions or comments? For example, are there certain comments your students make that let you know whether they confused during the lesson? What would some of these be?
  - (e) In your opinion, how would you describe the ways in which your students use their indoor science and math lessons as an opportunity to explore the material on their own? How much of their engagement do you feel depends on your guidance?
  
2. How do your students' typical levels of engagement during a lesson taught in the outdoor classroom, compare to your previous responses about the indoor classroom?
  - (a) How do you know when your students are actively listening to the instructions they are being given in the outdoor classroom? Do they act or behave in a certain way?
  - (b) How does the body language and physical activity of your students differ in the outdoor classroom? How much movement do they exhibit during lessons? Do you associate any of their physical activity with how engaged they are in the lesson? In your opinion, in what ways does providing the opportunity for students to be physically active in the outdoor classroom lead to more or less engagement?

- (c) From your experience, what type of questions or comments do your students ask or make during these lessons? How would you gauge your students understanding of the lesson through these questions or comments? For example, are there certain comments your students make that let you know whether they confused during the lesson? What would some of these be?
  - (d) In your opinion, how would you describe the ways in which your students use their outdoor science and math lessons as an opportunity to explore the material on their own? How much of their engagement do you feel depends on your guidance?
3. What are some of the main difference you have observed about your students' engagement in the outdoor classroom as compared to the indoor classroom?
- (a) Are there any students who seem to be more engaged in either indoor or outdoor settings? If so, in what ways have you seen this demonstrated by certain students?
  - (b) From your experience, what type of student is most engaged in the outdoor classroom? What would be an example of this type of students experience outdoors?
  - (c) From your experience, what type of student is least engaged in the outdoor classroom? What would be an example of this type of students experience outdoors?
4. How do your students' overall levels of engagement affect the amount you bring them to the outdoor classroom?
- (a) As the classroom teacher, what do you feel are the drawbacks to you in bringing your students to the outdoor classroom? What are the drawbacks to the students?
  - (b) As the classroom teacher, what do you feel are the benefits to you in bringing your students to the outdoor classroom? What are the benefits to the students?
  - (c) How, if at all, does the outdoor classroom factor in to your curriculum planning?

## Appendix B

## Teacher Recruitment Letter

Dear \_\_\_\_\_,

My name is Kristen Payne, and I am a second year Science Education Masters student at TCU. Through my program at TCU I have had the wonderful opportunity to intern with REAL School Gardens (RSG). I am currently working on my thesis, which involves teachers' opinions of their student's engagement outdoors. Through your partnership with RSG you have had the opportunity to participate in Garden Integration Visits (GIV's), as well as outdoor teaching experiences of your own. My hope is to better understand your student's engagement during these outdoor lessons.

My belief is that no one understands students better than their teachers, which is why I would like to interview you about your experiences. The interview would take about an hour and can be scheduled at your convenience. This could be before school, after school, during a preparation period, or even a weekend. The idea is that by better understanding your students' experiences we can tailor outdoor education to maximize the benefits of being outdoors. The interview data would be kept entirely anonymous, so that after the completion of the interview there would be no way of identifying your data by anything other than a unique subject number. I believe that research in the field of outdoor education is extremely important, and the addition of teacher opinions on student engagement is that much more valuable.

I hope that I have the opportunity to speak with you about your personal experiences and opinions. Please contact me by phone or email with any questions or to schedule an interview.

Thank you,  
Kristen Payne  
Phone: (915-549-7981)  
Email: k.e.payne@tcu.edu





**Texas Christian University  
Fort Worth, Texas**

## **CONSENT TO PARTICIPATE IN RESEARCH**

**Title of Research:** Teacher Opinions of Student Engagement in the Outdoor Classroom

**Funding Agency/Sponsor:** n/a

**Study Investigators:** Molly Weinburgh and Kristen Payne

### **What is the purpose of the research?**

The purpose of the research is to document and analyze teacher opinions of their students' engagement in the outdoor classroom as compared to their engagement in the typical indoor classroom. The study will allow you to compare your students' engagement while outdoors, and will be useful in determining whether or not the outdoor classroom would be a successful teaching tool in activating students' engagement.

**How many people will participate in this study?** 10- 20 classroom teachers will participate.

### **What is my involvement for participating in this study?**

You will participate in one interview with Kristen Payne, to be scheduled two to three weeks after your students participate in a Garden Integrated Visit (GIV) conducted by Real School Gardens.

### **How long am I expected to be in this study for and how much of my time is required?**

The interview will last for approximately one hour. There are no other requirements of you for the study.

### **What are the risks of participating in this study and how will they be minimized?**

There will be no additional risk to you above that which would normally be present during a typical school day. You will be interviewed at your own convenience at your school. You may find it difficult to identify the strengths and weaknesses of your students' engagement because of a preconceived bias of what you believe should or should not occur. This might make answering some interview questions difficult. This risk will be minimized by allowing you to choose not to answer any question you find uncomfortable. All interviews will be recorded, transcribed, and kept in a locked cabinet in the principal investigators office and identifying names will be replaced with pseudonyms.

### **What are the benefits for participating in this study?**

The potential benefits to you for participating in this study would be to develop a deeper understanding of your students and their engagement. By participating in this study, you will be able to express your thoughts on your students' behavior in the outdoor classroom, and how this teaching method impacts their engagement in the subject matter being taught.

**Will I be compensated for participating in this study?**

There will be no compensation for participation in the study.

**What is an alternate procedure(s) that I can choose instead of participating in this study? n/a****How will my confidentiality be protected?**

The data will be collected as written notes and audio recording using a audio digital recorder. The conversations will be transcribed into written form and identifying names will be replaced with pseudonyms. All data will be kept on a removable hard drive in a locked safe in the office of the principal investigator, Mark Bloom. Data will be kept for at least three years after the completion of the study.

**Is my participation voluntary?**

Participation is on a completely volunteer basis, with the opportunity to withdraw at any time without penalty.

**Can I stop taking part in this research?**

Subjects may stop their participation in the study at any time without penalty by contacting the study investigators.

**What are the procedures for withdrawal?**

In order to withdraw the participant would only need to inform Kristen Payne at [k.e.payne@tcu.edu](mailto:k.e.payne@tcu.edu) or Molly Weinburgh at [m.weinburgh@tcu.edu](mailto:m.weinburgh@tcu.edu). No explanation is necessary for withdrawal from the study.

**Will I be given a copy of the consent document to keep? Yes****Who should I contact if I have questions regarding the study?**

Kristen Payne- [k.e.payne@tcu.edu](mailto:k.e.payne@tcu.edu)

Molly Weinburgh- [m.weinburgh@tcu.edu](mailto:m.weinburgh@tcu.edu)

**Who should I contact if I have concerns regarding my rights as a study participant?**

Dr. Meena Shah, Chair, TCU Institutional Review Board, Telephone 817-257-7665.

Dr. Janis Morey, Director, Sponsored Research, Telephone 817-257-7516.

Your signature below indicates that you have read or been read the information provided above, you have received answers to all of your questions and have been told who to call if

you have any more questions, you have freely decided to participate in this research, and you understand that you are not giving up any of your legal rights.

**Participant Name (please print):** \_\_\_\_\_

**Participant Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Investigator Name (please print):** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Investigator Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_



**TEXAS CHRISTIAN UNIVERSITY**  
**Media Recording Release Form**

**Title of Research:** Teacher Opinions of Student Engagement in the Outdoor Classroom

**Study Investigators:** Molly Weinburgh, Kristen Payne

**Record types.** As part of this study, the following types of media records will be made of you during your participation in the research:

- Audio Recording

**Record uses.** Please indicate what uses of the media records listed above you are willing to permit by initialing below and signing the form at the end. We will only use the media records in ways that you agree to.

- The media record(s) can be studied by the research team for use in this research project.  
Please initial: \_\_\_\_\_
- The media records(s) and/or their transcriptions can be used for scientific or scholarly publications.
  - Please initial: \_\_\_\_\_
- The media records(s) and/or their transcriptions can be used at scholarly conferences, meeting, or workshops.
  - Please initial: \_\_\_\_\_
- The media records(s) and/or their transcriptions can be used in classrooms.  
Please initial: \_\_\_\_\_

I have read the above descriptions and give my consent for the use of the media recordings as indicated by my initials above.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

*If you have concerns regarding your rights as a study participant, contact Dr. Meena Shah, Chair, TCU Institutional Review Board (Telephone 817-257-7665) or Dr. Janis Morey, Director, Sponsored Research, (Telephone 817-257-7516).*