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Connecting teachers to themselves, their students, and the earth

Michelle Sager

Portland State University

2013

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"In classical understanding, education is the attempt to 'lead out' from within the self a core of wisdom that has the power to resist falsehood and live in the light of truth, not by external norms but by reasoned and reflective self-determination"

Parker Palmer, 1998, p. 31

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I. PREAMBLE

Education is an evocative word. It means something different to everyone, and the mere utterance of the word can evoke a spectrum of emotions. It is defined as "the process of receiving or giving systematic instruction, esp. at a school or university" (Google, 2013). As it currently stands, education is a formalized structure, an already existing system to be plugged into, which is highly standardized and intellectual. This current system's goals are higher education and successful careers in business.

The focus in our educational system is content, often prioritizing math and reading. However, there is a hidden piece of school curriculum – the piece that reinforces culture and value systems. Our modern industrialized culture believes development is linear; it prioritizes competition over cooperation; it expects a correct and objective answer and leaves little room for personal reflection. Fragmented disciplines are standardized, and it does not value the connections or relationships between them. My own experiences in formal education were a mixed bag, and I graduated from both high school and college feeling disempowered, confused, and directionless.

As an educator, I have been continually seeking my place to work for change within this narrative. For many years I was an elementary grades art educator, with the intent of exposing children to new ways of expression. I felt that the rapidly standardized curricula focusing on math and reading would keep many children silent to their own ideas, denying them the opportunity to practice communicating them. Now I work with the middle grades in a garden-based program, working to connect my students to their food systems, to each other, and to themselves.

Let me be clear: I *adore* teaching. I love working with children of all ages, because I find incredible beauty and poetry to their insights and connections. I love writing lesson

plans, because it is a powerfully creative process, and a challenge to create experiences that are fitting and relevant to my students. I love working with other educators, because collaboration boosts creativity exponentially, and working within a strong community can create a support network that can be crucial in stressful moments.

Working in the arts and in the garden, I am often relegated to the title of "enrichment educator". My feelings about this are ambivalent; while this can sometimes feel condescending and marginalizing, it also offers me my freedom – freedom from the confined walls of a classroom, from standardized assessment, and from much of the bureaucracy of school systems. My values as an educator lie in compassion and connection between people and the earth, in critical reflection, self-understanding, creativity, collaboration, and empowerment.

I believe that education should be *integrative* – holistic, reaching to a multitude of learning styles, creating personal and customized learning experiences in which students can take part in creating their own learning. I believe that emotion is an important piece of learning, and that we must learn to recognize and understand our own emotions as students and teachers. I believe that the purpose of education should be to help students critically reflect on their world and context, figure out what they are passionate about, as well as how this passion can help to serve their bio-cultural communities, and to acquire the skills to do it. This, I believe, is sustainability education.

I believe that changing education will take creativity, and leaders in education will have to model a new way of teaching and learning. Leadership for sustainability education requires effective communication, patience, and the ability to see and understand whole systems as opposed to individual parts and players. Schools and communities are built upon the relationships between the people that make them up, and

this type of leadership requires people who can help to heal the scars of disconnection, bring people together, and foster relationships to others, to ourselves, and to the earth.

Reflection on Significant Learning

Self-Understanding and Commitment: Throughout my coursework in the Leadership for Sustainability Education (LSE) program, I have not only solidified my personal values and ethics as an educator, but have developed the language for talking about them. From the beginning, I have been asked to reflect on my learning as it was happening. In my first class in LSE, Advanced Leadership for Sustainability, I contemplated how my views on leadership developed after working on a whole-class project, and found that it requires "getting on the balcony" (Heifetz, 1997) to see what is happening in all parts of the system, and entering the system as a catalyst at leverage points for change (Meadows, 1999); in Spiritual Leadership, I reformulated my thoughts on leadership, incorporating the balance and connections offered by self-care and selfunderstanding as part of spiritual practice. In Ecological and Cultural Foundations of Education and in Philosophy of Education, I enjoyed building my teaching and educational philosophies, which center on connection, holism, and empowerment.

Systemic View of the World: In the readings of Wheatley (2006), Capra (2003), Hawken (2007), Orr (1990, 2004, 2005a, 2005b), Kumar (2010), and Starhawk (2004), I began to understand the world in terms of ecological principles and interconnected systems. This was reinforced while learning the twelve Permaculture principles in Permaculture and Whole Systems Design, which significantly transformed my view of the world. From this class, I learned the importance of slowing down, observing, and looking for patterns, and "the problem is the solution" (Mollison & Holmgren, 1978) has

become for me a daily mantra. I came to appreciate the value of multiple perspectives in Developmental Perspectives of Adult Learners, where we discussed models of developmental psychology and the importance of context for learners. Wheatley (2006) and hooks (2003) helped me delve into this topic, describing the participative and contextual nature of "reality", which has helped me remember to have patience in situations of miscommunication in both my personal life, and in my professional life as a teacher, working with children and other teachers.

Bio-cultural Relationships: During Philosophy of Education, Ecological and Cultural Foundations, and Spiritual Leadership, I began to really think about the importance of power and privilege in education. Reading hooks (2003), Freire (1993), Starhawk (2004), and Palmer (1998) gave me insight into educational systems that reinforce oppressive societal structures and the reminder to understand my own biases in these relationships that have long been based on difference and fear. My relationship with ecosystems and natural places transformed during my experiences in Permaculture, Ecological Foundations, and my internship at the Learning Gardens Laboratory (LGL). What I once considered beautiful yet intimidating has become an opportunity to understand, simply through the practice of observation and the experience combined with theory and reflection that these experiences offered.

Tools for Sustainable Change: I acquired skills to teach, learn, and enact change. Permaculture taught me how to grow food sustainably and in designs based on nature; my community-based learning (CBL) projects allowed me to apply the theory I was learning in classes to actual work in the community with real people; and my internship at the Learning Gardens Lab gave me the space to learn and experiment in growing food as well as teaching in a setting that was totally new for me. I deeply value my CBL

opportunities in my classes as well for allowing me to apply the theory we were learning directly to the work I was already doing. Specifically, in Ecological and Cultural Foundations, I was able to design courses for two of my classes with the Schools Uniting Neighborhoods (SUN) program I was working for using the Burns Model (Burns, 2011). The two classes were a totally different experience, and this reinforced the value of allowing my students to guide their learning and to be patient while they learn to express their perspectives.

PART II. ACADEMIC SYNTHESIS

INTRODUCTION

What are children really learning in schools? Is it facts and information presented to you during scheduled learning times? Or is it perhaps something more subtle? Maybe these valued takeaways are skills such as how to find out something you want to know, or how to develop an argument. Maybe they are even less tangible – how you came to know who you really are, how to be tactful, or when to ask for help. But is there something even deeper going on? Is there something we fail to acknowledge because we are unaware that it is even happening? Is it possible that there is a hidden curriculum being taught to children going unnoticed?

Cultures exist with a common set of beliefs, assumptions, and ways of understanding the world around them – a "like-mindedness" (Dewey, 2004) – and children are learning them, all the time, by default (Cortese, 2003; Sterling, 2011). This set of assumptions creates a lens through which a community, even an entire society, sees the world and calls it reality (Bowers, 1999). This taken-for-granted reality is reproduced in the educational system as elsewhere (Orr, 2004; Sterling, 2011; Gruenwald, 2003), mirrored in the structure of schools, of how we teach and learn, and in the actions of adults and other children (Bowers, 1999).

The problem isn't that this happens, that our realities are shaped by our context; the problem is that it so often happens unconsciously, without awareness, and without critical reflection on these contexts (Parr, 2005/2006; Freire, 1993; hooks, 2003). We all have preconceptions, biases, and assumptions that we consider truths. But without taking the time to acknowledge them, to understand that each of our own perceptions are not the only ways to understand the world, then our ability to relate and to empathize is compromised (hooks, 2003). Without trying to understand others' ways of knowing, we can't truly value them. And if we can't truly value others in relation to ourselves, then we can't truly know, value, or understand ourselves.

The Medium is the Message: These unquestioned assumptions are cultural, and as such, are being unconsciously reproduced in our children in many ways, from many angles – from their parents, from other children, from the various types of media they are exposed to (hooks, 2003; McLuhan, 1994). As an undergraduate, I read Understanding Media, in which McLuhan (1994) writes about the ways in which different types of media bring change to society. He argues that it is not the content of media that brings the change, but the medium itself. He was writing in the 1960s at the advent of universal film and television, and he was interested in the ways in which the pace of these media changed the pace of culture. He calls "hot media" things like film, which are lowparticipation, and hence have more power to impose their premise on people (McLuhan, 1994). Since the 1960s, these "hot media" have become exponentially faster.

I have found myself coming back to this phrase in my graduate studies, finding it incredibly useful when describing these hidden messages, and while the media in the

form described by McLuhan (1994) has a major hand in these messages, media of other types are just as powerful. So while the medium may be the message, language, space, and structure are some of the media I focus on that influence our lens of reality, especially in the venue of education.

The sustainability movement seeks to create equity – both between humans and the earth and between groups with privilege and of those oppressed (Hawken, 2007). Environmental and social sustainability seek to reconnect people to the earth and to others (Edwards, 2005), and in order to do so, we must question the assumptions in our culture that create power and privilege over oppressed groups of people (hooks, 2003) and our exploited natural environments (Orr, 2004; Williams & Brown, 2012).

There is one place in particular where children are experiencing these media and learning their cultural assumptions; a place where they spend a majority of their day, and are exposed to various types of learning, intentional and otherwise, and this place is, of course: the classroom. Classroom teachers are under a lot of pressure from all sides. With rising pressure in the form of standardized assessment and quantified, measurable learning, teachers' successes are often spoken about in terms of numbers (Sterling, 2011). But what is it that schools are really teaching? And what lessons are our teachers giving to children without realizing the impact on their students? What assumptions are our students graduating with, considering them universal truths?

The education system reproduces cultural norms. As a teacher, I am always struggling with this – what are *my* biases and assumptions that I pass along? What are my truths, and, just as importantly, what are the truths of my students? What are the truths of the teachers I work with? Of the teachers with whom I will never work? Without critical reflection for teachers, these assumptions will continue to be taught

unintentionally to our students. And teacher education programs are part of this same system, meaning that teacher educators are passing down *their* assumptions to student teachers, who will then pass them along to children (Nesbit, 2005; Sterling, 2011; Orr, 2004). By transforming teacher education, integrating critical reflection with teaching and learning theory and practical application, student teachers will be able to consider their truths and the hidden messages they send, and practice intentionality with these messages. In order for K-12 educators to practice critical and empowering methods of teaching and learning, teacher education programs need to reconnect their students to the earth, to their students, and to their own unquestioned assumptions using placebased, critical, and transformational learning theory and practical application.

LITERATURE REVIEW

Language as a Medium

Unconscious lessons are often being taught through language – not always through the things we say or do, but in the *ways* in which we say or do them (Taylor, 2008). Dewey (2004) explains that "society not only continues to exist *by* transmission, *by* communication, but it may fairly be said to exist *in* transmission, *in* communication" (p. 4). The ways in which communities use language – their vocabularies and prevailing metaphors – discreetly send messages about the truths of that community (Callenbach, 2005; Bowers, 1999; Williams & Brown, 2012). Callenbach (2005) describes word choice as holding power because, "Things that are included in a vocabulary gain a familiar reality; things that are left out are ignored or even have their existence denied" (p. 42). It is not always the words themselves that create the reality for those who speak them, but the ways that we unconsciously use them that shape our view of the world. The problem is that language can be oppressive. Racism, sexism, and stereotypes of all kinds are very prevalent in much of the language used in the West (Ross-Gordon, 1999; hooks, 2003). This is amplified by the denial of these stereotypes and assumptions – our culture, including our educational system, implicitly proclaims that we are *beyond* racism, sexism, classism, and cultural bias, portraying them as normal and natural (hooks, 2003; Nesbit, 2005). These assumptions create a taken-for-granted hierarchy of race, gender, sexual orientation, and socioeconomic status, placing whiteness, maleness, heterosexuality, and economic wealth at the top (hooks, 2003; Tisdell, 1998). Because this hierarchy becomes culturally institutionalized as the status quo, and then accepted, even sometimes believed, by those who are disadvantaged by such assumptions (Belenky, Clinchy, Goldberger, and Tarule, 1999; hooks, 2003; Starhawk, 2004).

Another important way we unconsciously send messages through language is in metaphors, and specifically in root metaphors (Williams & Brown, 2012). When comparing two disparate things, a metaphor creates a link between them, and a root metaphor prevails throughout a culture as a reappearing and commonly understood comparison or likeness. A deeply rooted metaphor in the modern Western world is that of the machine; coming out of the Industrial Revolution, this metaphor *operates* by comparing the life around us to the functions of machines, having us break down large systems to analyze them individually, creating a reality that does not look for or appreciate the connections between parts (McLuhan, 1994; Williams & Brown, 2012; Sterling, 2011; Starhawk, 2004; Orr, 2004).

This root metaphor, at work for many generations, has created some troubling assumptions of how we *function* as a society, and especially in education. We break learning down into separate and distinct disciplines, with little or no regard as to how

they work together (Cortese, 2003; Noddings, 1999; Kawagley & Barnhardt, 1999; Orr, 2004) In fact, the school is easily compared to a factory; Sterling (2011) describes schools as places where "young people and qualifications are produced; there are precise goals and targets; the curriculum provides directives for each stage of production; and teachers are technicians and are therefore substitutable. And workers are not required to think too much" (p. 40). This separation creates a disconnection between the disciplines, perpetuating the inability of students to see and understand whole systems.

If the world around us can be broken down into unrelated parts, then it becomes viewed as a collection of objects, and each of those parts becomes expendable (Cajete, 1999; Sterling, 2011; Noddings, 1984). It also allows for a belief in absolute control over each of these parts (Orr, 2004; Kawagley & Barnhardt, 1999, Bowers, 1999). In other words, it creates a distinct non-relationship between the user of this language and that which he or she is referring to. It places the topic in an "other" category, stripping it of its power to create, to relate, to matter. Palmer (1998) describes it this way: "when we distance ourselves from something, it becomes an object; when it becomes an object, it no longer has life; when it is lifeless, it cannot touch or transform us, so our knowledge of the thing remains pure" (pp. 51-52). If a system can be broken down into unrelated parts, then it becomes no bother for the user of this root metaphor to destroy certain parts without examining the ways in which each part matters to all the others.

Space as a Medium

Language is not the only way that unintentional messages are sent to our young. The ways that we organize, utilize, and pay attention to places are powerful messages sent to young people as they learn to exist in our society. Gruenwald (2003) explains

that, "it is largely the organization of space, together with the often-unconscious experience of places, that facilitates and legitimizes any cultural production. Space is the medium through which culture is reproduced" (p. 629). The ways in which our children see teachers use and think about physical places will teach them the ways in which we expect them to use these places.

The places we interact with most often today are artificial. Surrounded by asphalt, consumer capitalism, and urban sprawl, there are many who lack much, if any, direct experience with nature (Smith & Williams, 1999; Williams & Brown, 2012; Louv, 2008). We often do not see how or where our food is grown, or where our garbage goes when it leaves the bins in front of our houses; we wear insect repellent and don't think about the potential for summer draught when we complain about rainy winters. We essentially become blind to the ecosystems at work around us, and how we fit into them. Orr (1990) explains it this way: "without anyone saying much, students learn the lesson of indifference to the ecology of their immediate place" (p. 210). Children spend much of their lives in the presence of teachers, and disengagement of teachers with natural places is seen by their students, and can be understood to be what is expected of them.

But there is more than indifference at play here; there is also a cultural criminalization of natural play – from getting dirty to getting lost to getting in trouble, reasons abound for why children and adults are shamed away from experiencing natural spaces with any regularity (Louv, 2008). Children spend a huge percentage of their day inside a rectangular classroom, sitting at a rectangular desk, looking a rectangular chalkboard or rectangular computer screen. They come to understand that learning happens this way. They don't have to be told explicitly; the way we organize our spaces tells them for us (Orr, 1990). And most children come to understand being outside as

solely free and unstructured playtime; not an opportunity to learn something (Louv, 2008; Krapfel, 1999).

Without direct experience with natural places, we get ourselves into a system of reinforcing feedback in regards to our relationship to nature. The less we look for and appreciate nature, the less we are *able* to see or appreciate biotic diversity and the ways in which different parts of natural places interact and need each other. (Gruenwald, 2003). We quickly lose our emotional connection to nature in this feedback spiral, and begin to rely on technology for answers, entertainment, and protection, where we once looked to our environments (Orr, 1992; Krapfel, 1999).

Structure as a Medium

It is not only the structure of our spaces that sends messages, but also in the ways in which we structure our lives, organize our days, and understand how we fit into the rest of the world. For schools, there is an overarching structural message that we send to children: standardization (Noddings, 1999; Sterling, 2011; Orr, 2004; Holt, 2005, Williams & Brown, 2012; Dewey, 2004)

Think about our root metaphor of the *machine* – if schools are like factories, then standardization makes sense. What counts is only what can be measured (Sterling, 2011) and the national education discourse revolves around the issue of accountability (Gruenwald, 2003; Sterling, 2011). This creates learning environments focused on getting the answers right, and students are rewarded for knowing – while the underlying assumption is that all things are actually knowable (Margolin, 2005). Research states that not only students, but teachers as well, believe science to be a "set of facts and 'right' answers, rather than a process of discovery with many possible outcomes" (Klemmer,

Waliczek, & Zajicek, 2005, p. 448). This dominant paradigm has created an educational obsession with correctness overtakes a desire to facilitate learning, which often involves making mistakes, reflecting on those mistakes, and actively working to make personal changes to avoid making them again.

This structure based on measurement assessments also limits our ability to value creativity, courage, resilience, kindness, or any characteristic other than correctness (Holt, 2005). It creates an educational monoculture; impersonal, generic, and non-experimental curricula keep children unengaged and reminded that learning and boredom are often one and the same (Krapfel, 1999; Holt, 2005). And it teaches children that they don't have to make choices about what is important because it will be delivered to them, as if they are passive objects (Freire, 1993; Dewey, 2004; Noddings, 1999).

Disconnection with self, community, and bio-community

If our education system sees its students as passive objects, then our students will as well (Freire, 1993). In fact, this implicit story of individual and unrelated parts is a powerful message and it shapes the way we see the world – by breaking down systems and subjects and looking solely at their reducible parts, we don't see the importance of the relationships between those parts *because* we're not looking for them (Wheatley, 2006). There remains an unquestioned assumption that the individual is more important than its relationship to the rest (Dewey, 2004; Ableman, 2005).

However, it is becoming more and more clear that "the world is in reality more a fuzzy network of interconnected energies than a set of separate objects with neat mechanical relationships" (Callenbach, 2005, p. 43) Systems theory explains that even at an atomic level, what is important is not the particles themselves, but the reactions

between them (Wheatley, 2006; Capra, 2003), and growing philosophies such as Permaculture (Mollison & Holmgren, 1978) stress the importance of the interconnected nature of living systems. When we prioritize separate parts of systems as opposed to their interdependent relationships, fragmentation happens between humans and ecosystems (Evans, 2010; Orr, 2004; Louv, 2008), between human beings (Noddings, 1984; Orr, 2005b; hooks, 2003), and even within ourselves (Palmer, 1998; Evans, 2010).

The way our education system breaks down disciplines tells its students that the different things they are learning throughout their education are unrelated to each other (Kawagley & Barnhardt, 1999). It creates experts and specialists with compartmentalized knowledge (Orr, 1990; Kiefer & Kemple, 1999; Cortese, 2003; Noddings, 1999), and students often feel alienated from subjects and communities that seem irrelevant to them (Klemmer, et al, 2005).

Moreover, students can feel alienated from their own intelligence as well. While there are many ways of knowing and understanding the world, our education system prioritizes intellectual intelligence over creative, natural, relational, or any other kind of knowing (Rose, 2009; Williams & Brown, 2012). Fragmentation between learning with our head, hands, and heart is harmful to our ability to learn (Orr, 2005b; Sterling, 2011), and education often does not acknowledge the role of emotions in learning (Michael, 2005). Current educational paradigms teach primarily to our brains, but this puts many of us at a disadvantage because our bodies learn as well, and often more effectively. There is something incredibly important about primary experience – "that which we can see, feel, taste, hear, or smell for ourselves" (Louv, 2008, p. 65). Reaching multiple senses, primary experiences affect the whole person and help to make those larger connections, fostering systems thinking.

The disconnection is not just within ourselves or between others and ourselves – we are also from nature. This is troubling for a couple of reasons. On the one hand, it is detrimental to our planet's ecological systems. By looking at our environments as separate and unconnected from ourselves, we see them as objects, and not as entities valid in and of themselves and also in our relationships with them (Orr, 2005a). We not only create a disconnect, but we create a hierarchy in the process, placing humans above our natural environments (Evans, 2012), and cease to care for the systems and processes that sustain our own lives and lifestyles (Kawagley & Barnhardt, 1999; Orr, 2004). On the other hand, our loss of natural experiences impairs our own physical and emotional health (Louv, 2008).

Teacher Education: Nested in the Problem

The problem of the hidden message is systemic – and systems don't exist in isolation. Stone (2005) reminds us that, "Classrooms are nested within schools, which are embedded in school districts, which reside within communities that are part of bioregions and foodsheds inside nations within a global economy" (pp. 229-230). If our education system is creating disconnection and fragmentation in its students, then it is happening at all levels of education.

Teacher education and preparation programs are part of higher education, and traditional methods of teaching and learning have neglected to critically reflect on these cultural assumptions (Kiefer & Kemple, 1999; Burns, 2011, Nolet, 2009; Cortese, 2003). Even though the aim of higher education is improve upon social disadvantages, it often works to maintain dominant ideas by portraying them as normal (Nesbit, 2005). Bowers (1999), states that, "Education faculty socialize the next generation of classroom

teachers" (p. 162), and it is important to recognize that socialization is based on these disconnected cultural assumptions that are so often taken for granted (Kawagley & Barnhardt, 1999; Bowers, 1999).

Perhaps most important, is that these programs lack the effective critical reflection that leads to self-understanding, including consideration of these contextual assumptions and previously unquestioned personal biases (Parr, 2005/2006). Teaching is a complex interplay between social, cultural, psychological, and physical factors, and classroom interactions are often automatic and reactive (Korthagen, 1999). Without addressing preconceptions, student teachers may implicitly build teaching methods and theories that are harmful, fragmenting, and based around hidden beliefs (Parr, 2005/2006).

Further fragmenting the identities of student teachers is the theory vs. practice argument that is often present in teacher education programs. The problem is that the discussion "focuses on the question of whether teacher education should start with theory or practice instead of the more important question of how to integrate the two in such a way that it leads to integration within the teacher" (Korthagen, 1999, p. 4). If theory is presented without relating it to the experiences of student teachers, then it becomes abstract and irrelevant for them (Korthagen, 1999; Dewey, 2004), but practice without theory cycles back into unquestioned and automatic behaviors (Korthagen, 1999; Parr, 2005/2006). Along with integrated reflection on self, teacher education needs more integrated theory and practice.

Adult Development, Transformational Learning and Critical Theory

Teacher education is worth rethinking, because adults, just like children, still have a lot to learn; development theory explains that adulthood is a process rather than a state of being (Tenant & Pogson, 1995). The goal of higher education should be to aid its students toward self-authorship, which Taylor (2008) defines as "the developmental capacity to internally define one's own identity, relationships, and beliefs" (p. 215). It is described as the process in which one learns to maneuver societal messages, and to transition from depending on others' ways of understanding the world to creating one's own, built around personal identity and relationships. (Zaytoun, 2005; Taylor, 2008).

Important to consider in teacher education along with adult development is transformational learning theory, which is described as an "epistemological transition during which the learners move from one paradigm of knowledge to another" (Robertson, 1997, p. 106). The idea is that learners integrate new knowledge into their identities, which changes the way they understand the world, as opposed to simply learning new information (Robertson, 1997). It is a complex, non-linear, and often emotional experience – which includes the loss of an old paradigm, the grieving period for that loss, uncertainty and ambiguity, a period of searching and exploration, and discoveries of new paradigms (Robertson, 1997; Mezirow, 2000; Baumgartner, 2001; Taylor, 2008). It includes critical deconstruction of the dominant discourse to "lay bare its underlying assumptions" (Tisdell, 1998, p. 145). The goal is to learn to maneuver societal messages and appreciate the value in diverse perspectives (Taylor, 2008; Zaytoun, 2005; Burns, 2011). If we can recreate the way teachers are educated, to include a process of integrated self-understanding, we can begin to change the systemic issues of leaving cultural assumptions unquestioned. New teachers with the tools of self-

understanding, connection to the earth and to others, and the awareness of harmful hidden lessons being taught in schools can be empowered to make changes in their schools, and in their classrooms, where the effects can ripple out from every teacher, and every child that builds their own connections and understandings with the guidance of a new kind of educator.

II. SOLUTION: EDUCATING EDUCATORS

Sustainability Teacher Education Program: GTEP + LSE = STEP!

It is important to reconsider education for teachers, and begin incorporating critical and transformational learning theory into teacher education in order to reflect on the complexity of teaching and learning (Bowers, 1999; Nolet, 2009; Kiefer & Kemple, 1999, Corcoran, 1999). The goal of teacher education programs can be for students to "explore the *connection between* who they are as individuals and the structural systems of privilege and oppression... that partially inform how they think" (Tisdell, 1998, p. 139). With an integrated combination of theory, practice, and reflection, student teachers can build connections between themselves and others, between themselves and nature, and even between fragmented parts of their own identities.

The good news is there is organizational structure that can easily support the implementation of such a program. In fact, Portland State University (PSU) has a program designed to do just this – the Leadership for Sustainability Education (LSE) specialization, nestled within the Educational Leadership and Policy (ELP) department within the larger Graduate School of Education (GSE). The LSE program is structured around four key learning areas that are meant to integrate the self (Self-understanding and Commitment), foster interconnectedness and systems-thinking (Systemic View of

the World), connect to others (Bio-cultural Relationships), and empower its students to work for change (Tools for Sustainable Change). As I have described in my Preamble, my own experience in LSE has been transformational, empowering, and truly deep.

However, as a graduate of LSE, I still do not hold a teaching credential, and my "enrichment education" title remains. I believe strongly that if all student teachers were to have an LSE experience, that they could take these key learning areas, with an integrated sense of self and systems in relation to bio-community, and feel empowered as new teachers to recreate these experiences in their K-12 classrooms. My solution to the outlined problem is a proposal that includes suggestions, based on my own experiences as a graduate student at PSU in the LSE specialization, to combine the LSE graduate program with the Graduate Teacher Education Program (GTEP) into a cohort program called the Sustainability Teacher Education Program, or STEP. This solution describes guiding principles of this new STEP program and suggests LSE courses that meet these objectives. Then, an overview of the nine (9) InTASC standards is provided, with suggestions of ways to meet these standards through LSE coursework. Appendix A demonstrates a potential three-year schedule for a STEP student.

Self-Authorship for Teachers: The Importance of Connecting to Self

It is essential for student teachers to develop an understanding of self before attempting to aid in the development of their students (Cranton, 2006; Palmer, 1998; Nolet, 2009). Palmer explains that, "In classical understanding, education is the attempt to 'lead out' from within the self a core of wisdom that has the power to resist falsehood and live in the light of truth" (p. 31). This means there is incredible value in authenticity when it comes to teaching. Effective teaching comes from building authentic

relationships with students, and we can only do this by practicing integrative selfunderstanding in an effort to create authenticity within ourselves (Noddings, 1984; Palmer, 1998; Cranton, 2006). Effective leadership starts with reintegrating the disconnected pieces of the self, so often fragmented by the hidden messages of separation, objectivity, and the machine metaphor.

Students in LSE become very practiced in reflection – we believe it is important to understand yourself as a learner before you can understand yourself as a teacher, or understand your students as learners. There is much reflection on students' past educational experiences, as well as on their current growth, *while* learning about adult development. Also, as students build both educational and leadership philosophies throughout the program, they are asked to express these ideas more than once, and with reflection on the changes they have made in their own perspectives.

Suggestions: Advanced Leadership for Sustainability, Ecological and Cultural Foundations for Learning, Spiritual Leadership, Developmental Perspectives of Adult Learners, and Philosophy of Education are courses that provide theoretical background and have students reflect on their own experiences in comparison to the theories in ways that solidify students' perspectives as well as make others' perspectives relatable and empathetic.

Authenticity for Relationships: Connecting with Students

It is especially imperative for teachers to be critical of social norms in order for them to understand their own biases in regards to their students. Zaytoun (2005) argues that self-reflection is the key to social action because it allows for empathy of others' perspectives. This means that acknowledging the multiple identities of students is

incredibly important, including background, age, race, socioeconomic status, gender, and sexual orientation, because all cultures carry with them their own hidden messages and educators need to be able to have an idea of the specific ones that influence not only their own lens to the world, but the lenses of their students as well (Taylor, 2008). Building a relationship within the self is vital for teachers, *in order* for them to create the space within themselves to build authentic relationships with their students (Palmer, 1998).

Suggestions: In Advanced Leadership for Sustainability, the class goes through a unique transformational experience of working on one large project, all together. Most students are confronted with charged relationship experiences and then asked to evaluate their perspectives around relationships. Developmental Perspectives of Adult Learners gives excellent theoretical on development theory from multiple perspectives. This class is particularly useful for understanding one's own perspective, but it is also helpful for understanding others'. For K-12 educators, there should be a modified version of this class that would include multi-age development theories.

Place-based Learning: Connecting with the Earth

Connecting people to their inner self, and reconnecting the teacher to the student are vital for authentic teaching and learning. However, if we only connect to others, and to ourselves, we are ignoring a vital connection – our relationship to the earth. Creating connections to places is an important step to valuing those places, and so feeling a responsibility to take of them. It is argued that humans only value what they know and understand, and only protect what they value (Orr, 1992; Smith & Williams, 1999; Krapfel, 1999; Louv, 2008; Barlow et al., 2005; Williams & Brown, 2012). By allowing

student teachers to experience a place closely, they are able to form an emotional connection with a place and discover empathy for it. Armed with love for a place, they are much more likely to take care of it, and to *teach their students to care for it*, thereby creating a larger sense of care for the earth.

Much of the argument for place-based learning is to take education outside, and/or away from boxy, stuffy classrooms that so rarely embody or display the things we are learning about (Ableman, 2005; Louv, 2008; Williams & Brown, 2012; Orr, 1992). Freire (1993) reminds us that, "Authentic reflection considers neither abstract man nor the world without people, but people in their relations with the world" (p. 7). A key factor in creating connections with natural environments is to actually experience them. Louv (2008) states, "much of our learning comes from doing, from making, from feeling with our hands; and though many would like to believe otherwise, the world is not entirely available from a keyboard" (p. 67). Experiential learning lends itself to student participation in their own learning. It is based around large questions, and often includes exploratory, open-ended projects. Instead of looking for correct answers or results, learning shifts from teacher-led question-and-answer to collaborative dialogue (Williams & Taylor, 1999; Barlow et al., 2005; Krapfel, 1999; Williams & Brown, 2012). Through this process, teachers and students are learning together.

Critical reflection on place is also inherently interdisciplinary, asking students to think about our relationship to natural and man-made spaces, and to focus on how landscape, community, watersheds, foodsheds, culture, politics, and economics interact and affect each other (Orr, 2005a; Gruenwald, 2003; Burns, 2011). Orr (2005a) calls this "education for inhabitation" (p. 93), and it allows students to experience the interconnections between themselves and their places that might have previously gone

unnoticed (Kawagley & Barnhardt, 1999; Krapfel, 1999; Smith & Williams, 1999; Corcoran, 1999; Ableman, 2005).

Suggestions: All incoming student teachers should have experience in gardenand/or outdoor-based education. Permaculture and Whole-Systems Design, Urban Farm Education, and Integrating STEM and Sustainability Education through Learning Gardens are some electives that could be beneficial and empowering for student teachers. The Learning Gardens Laboratory (LGL) is a 12-acre farm in Southeast Portland that partners with Lane Middle School. It is currently managed by LSE graduate students and serves to provide hands-on, participatory learning experiences for middle school students, undergraduate and graduate students, and community members. New student teachers should take at least one class associated with the LGL during their course of study.

Observe and Interact – Teaching Outside the Box

In general, garden-based education is an excellent way for teachers to restore a connection to the natural world and to ecological cycles, and remain in a traditional school setting. In a garden, students are observing natural processes, and using their bodies as well as minds to learn. Many children and adults have little or no connection to where their food comes from, and learning gardens help to rectify this (Williams & Brown, 2012). Ableman (2005) also describes how the process of growing your own food makes larger connections, including life cycle, how individual actions affect the world, as well as gaining practical skills and feelings of empowerment by learning that observation is a tool each of us have on our own for learning. It would be useful for

student teachers to gain experience in gardens for their own connection, which can then ripple out into their classrooms.

Margolin (2005) tells us that Native educational pedagogy believes "when you teach someone something, you've robbed to person of the experience of learning it (p. 70). By shifting from answers to inquiry, we are also reinforcing the importance of humility in the face of knowledge – we can't know everything; the world is far bigger and more complex that we can ever fully understand. Students should learn that curiosity is in and of itself an asset, and that close observation can lead to understanding. This can be modeled in teacher education programs for student teachers to experience for themselves, and then take into their classrooms.

Observation is a skill that requires students to slow down in a fast-paced world (Orr, 1992; Kawagley & Barnhardt, 2005; Williams & Brown, 2012). It easy to miss what is right in front of you, and focusing attention on slow details helps students see and understand patterns. Practicing observation also teaches students that learning is in their own hands – when you have questions, you can also take the time to observe and look for patterns yourself. Krapfel (1999) describes observation as reading the stories of the world and that "through careful observation and sharing with others, we can learn to read these stories for ourselves" (p. 62). This is a tool for empowerment, showing students that learning is an experience that belongs to them.

Suggestions: The first two years of the program should include Community-Based Learning (CBL) experiences in order to provide perspectives in education that are less traditional that public school classrooms. This could be with after-school programs, garden-based learning programs, or art education programs. I would even suggest having partner programs that STEP students could experience together, perhaps an innovative

partner school or LGL. Having these experiences of observation in non-traditional educational programs *before* student teaching would be really useful. That way, when student teachers can first be "learners-in-practice" before becoming "teachers-in-practice" (Parr, 2005/2006, p. 136). Student teachers can then be empowered with experience to bring new ideas to traditional classrooms.

In TASC Standards and LSE

Interstate New Teacher Assessment and Support Consortium (InTASC), is responsible for teacher licensing and program approval. They have created nine (9) core teaching standards, which also have sub-standards to help clarify and deepen what is meant by the standard. I actually believe LSE to currently meet most of these standards, with a couple exceptions, which I outline here.

Learner Development: "The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences" (Council of Chief State School Officers, 2011). This is explicitly addressed in LSE in Developmental Perspectives of Adult Learners, Ecological and Cultural Foundations of Learning, and Philosophy of Education. Students reflect on their own learning as well as learn developmental theories that address multiple contextual perspectives.

Learning Differences: "The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards" (Council of Chief State School Officers, 2011). Students cover this topic in Philosophy of Education, Spiritual Leadership, and Developmental Perspectives of Adult Learners. In these classes students learn the value of multiple teaching philosophies and learning styles.

Learning Environments: "The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation" (Council of Chief State School Officers, 2011). This requirement is met in Advanced Leadership for Sustainability, Spiritual Leadership, Educational Organization and Administration, and in multiple CBL requirements. Students learn how organizations and structures can work effectively and how to create positive interactions.

Content Knowledge: "The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content" (Council of Chief State School Officers, 2011). Experiences in Sustainability Education, Ecological and Cultural Foundations of Learning, and Integrating STEM and Sustainability Education through Learning Gardens address this topic. Here, students specifically discuss inquiry-based curriculum as a vital tool for meaningful learning.

Application of Content: "The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues" (Council of Chief State School Officers, 2011). This is addressed in Sustainability Education, Integrating STEM and Sustainability Education through Learning Gardens, Ecological and Cultural Foundations of Learning, Permaculture and Whole Systems Design, Spiritual Leadership, and Developmental Perspectives on Adult Learners, as well as in community-based learning requirements, which help students practically apply the theories they are learning about to their work and teaching practices.

Assessment: "The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making" (Council of Chief State School Officers, 2011). As a concept, this is addressed in Permaculture and Whole Systems Design, Sustainability Education, Integrating STEM and Sustainability Education through Learning Gardens, and Ecological and Cultural Foundations of Education. However, there would need to be a required course that covers traditional methods of assessment, along with an exploration of innovative and creative methods of assessment. An LSE perspective on assessment is currently something currently missing from the program.

Planning for Instruction: "The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context" (Council of Chief State School Officers, 2011). This topic is covered as theory in Ecological and Cultural Foundations of Learning and Philosophy of Education, and specifically in Sustainability Education and Integrating STEM and Sustainability through Learning Gardens by creating curriculum frameworks in this fashion.

Instructional Strategies: "The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways" (Council of Chief State School Officers, 2011). This is discussed in Ecological and Cultural Foundations for Learning, Sustainability Education, Integrating STEM & Sustainability

Education through Learning Gardens, and Advanced Leadership for Sustainability, specifically through creating lesson plans and CBL experiences.

Professional Learning and Ethical Practice: "The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner" (Council of Chief State School Officers, 2011). While LSE does not specifically address the issue professional development, it provides invaluable networking with educators and organizations that provide development opportunities, as well as support for CBL learning to take place at students' places of work. As for the evaluation of practice and effects of choices, this requirement is met in the reflections in Developmental Perspectives of Adult Learners, Advanced Leadership for Sustainability, Spiritual Leadership, Permaculture and Whole Systems Design, Philosophy of Education, and Educational Organization and Administration.

Overall Suggestions

The LSE/GTEP program should be a third cohort, along with traditional GTEP and LSE cohorts – independent, yet integrated and overlapping with them, making room for more students without making class sizes large and impersonal. It should be stretched to three years to leave room for electives, which have been a really important part of my learning process and transformational experiences as a student in the program. There is also power in the number three – with a year for observation and new experiences, maybe working as a cohort with one partner organization such as LGL; a year to delve deeper, doing more independent CBL explorations; and a year for student teaching requirements and writing comps makes for a feeling of completion.

The Research Methods ELP core class should be replaced with the Teacher as Researcher class used in for the Master of Education (M.Ed.) awarded from the GTEP program, or something that could be made slightly more relevant for classroom teachers and/or students choosing to do comps instead of a thesis. There should also be more organized preparation for comps projects, and possibly a credit-hour partnering of students writing their comps with students who are not; the students who are writing can use the support of those not yet writing for editing, and those not yet writing would gain familiarity with the process before delving in themselves.

There needs to be a class that specifically addresses assessment methods that could include both traditional and non-traditional ideas. There should also be more interdisciplinary options about teaching content. For example, combining the math and science requirement for elementary education, or the creation of totally new classes, such as Multi-sensory Learning Across Disciplines, which could include important aspects of classroom management, student engagement, and various tools for learning. If the program is *showing* the connections, it will be easy for teachers to *see* them. I have outline an example schedule for students in Early Childhood / Elementary Education (see Appendix A).

CONCLUSION

It is important to reconsider education for teachers, and begin incorporating systems thinking in teacher education in order to reflect on the complexity of creating lessons in this more holistic way (Bowers, 1999; Nolet, 2009; Kiefer & Kemple, 1999; Corcoran, 1999). Both teacher certification programs and continuing teacher education

can focus on connections, ecology, and relationship to place. Teachers can reflect on their own experiences, emotions, and connections to places from their own childhoods to help guide their learning and preparation for creating lessons.

By practicing reflection on their own backgrounds, assumptions, and biases, student teachers will be more prepared to support and value the diverse perspectives of their students. By experiencing places and practicing close observation, teachers can develop relationships to these places, thereby ensuring their continued care for them and the passing on of this ethic of care.

PSU is already a leader in this vein, offering many creative and participatory classes and programs around the topic of sustainability – that's what brought me here as a student. Now it has the opportunity to delve deeper, integrating programming to serve more students in more ways. PSU can pave the way for teacher education programs everywhere to include this kind of reflective, critical, transformational, and place-based learning around sustainability, creating a population of teachers who are ready for the challenges we face, not only as educators but and citizens of the world. Education is a powerful venue for reproducing culture. Teachers need to be asking: what do *I* want to pass on to our children?

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Appendix A EXAMPLE SCHEDULE: Early Childhood / Elementary Education

YEAR 1	CREDITS
Fall Term	
Advanced Leadership for Sustainability	4
Developmental Perspectives of Learners / Learning and the Learner	4
Tot	al 8
	<u> </u>
Winter Term	
Feelogical and Cultural Foundations for Learning	
Literagy in Elementery Classroome	4
	3
100 Service Terry	ai 7
Educational Organization and Administration	4
Integrated Math and Science Methods	4
Tot	al 8
Total for the Ye	ar 23
	••••••••••••••••••••••••••••••••••••••
YEAR 2	CREDITS
Summer Term	
Integrating STEM and Sustainability Education through Learning Gardens	6
Tot	al 6
Fall Term	
Permaculture and Whole Systems Design I	4
Multi-Sensory Learning Across Disciplines	4
Tot	al 8
Winter Term	<u></u>
Philosophy of Education	1
Clabal Balitical Faalagy	4
	-1 0
	ai 0
Spring Term	
Student Leaching I	4
Spiritual Leadership	4
Tot	al <u>8</u>
Total for the Ye	ar <u>30</u>
YEAR 3	CREDITS
Summer Term	
Fall Term	
Student Teaching II	3
Comps Prep	1
Professional Collaboration	1
Tot	al 5
Winter Term	
Student Teaching III	6
Professional Collaboration	1
Comps Dren	1
	ai <u>ð</u>
Spring term	
Comps	4
Tot	al <u>4</u>
Total for the Ye	ar 17
Total for Progra	m <i>70</i>

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