The Greening of the Language Arts: Considering Sustainability Outside of the Science Classroom

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Keywords: English language arts, sustainability, multi-media literacy, ecocomposition, ecocriticism, secondary education, social justice

Abstract: If the concept of sustainability is studied at all in middle or high school, chances are that study is taking place in the science classroom. After all, the topic of sustainability is still widely perceived as one of scientific purview: the melting of the polar ice caps, the increase in storm severity, droughts, flooding, and the like. However, I would like to challenge that assumption, and suggest the topic of sustainability be incorporated more broadly, and by more departments than only biology or geography. I would like to invite my colleagues in the English language arts to take ownership of sustainability education, and more closely examine the roles of the economic and societal factors that are directly related to the environmental degradation of our planet. In this paper, I will provide justification for such an undertaking, and also share my own work on inviting student voice and student experience, along with visual media, into the conversation of sustainability education, and more broadly into the conversation of social justice. I will share, through the work of talented secondary students, why sustainability education is the under the purview of *all* teachers, not just those in the science department.

Overview

Humanity is exalted not because we are so far above other living creatures, but because knowing them well elevates the very concept of life.

E.O. Wilson

Given the titles most often studied in secondary literature classes, one could infer that critical topics such as race, gender, class and culture reigned supreme in the 20th and 21st centuries. From the classics to current young adult fiction, students are transported to worlds where characters are acting in and around specific settings, but the settings are not necessarily the star attraction. The settings provide context, but only as backdrops for the main characters on stage. According to Glotfelty (1996), upon reading the current canon, "you would never suspect that the earth's life support systems were under stress. Indeed, you might never know that there was an earth at all" (p. xvi). In secondary literature classrooms, where students study how ethics impact their moral and spiritual lives, "we have fairly well ignored our impact on the natural world or our relationships with it" (Bruce, 2011, p. 13).

The concept of relationships is key. Closely examine any middle or high school curriculum, and you will readily find many topics being formally studied: chemistry, algebra, civics, literature and the like. However, what you won't readily find is any meaningful connection between them, as often they are treated as separate entities, existing in a vacuum, not simultaneously acting or being acted upon. As educators, we would do well to heed Barry Commoner's first law of ecology, which states, "Everything is connected to everything else." The disciplines under study in our schools *should* not, according to Cheryll Glotfelty, "float above the material world in aesthetic ether," but rather they must interact, playing a part in an "immensely complex global system, in which energy, matter and *ideas* interact" (1996, p. xix, emphasis in original).

Ignoring our impact on the natural world occurs at our own peril. Scan any headline and you are sure to find news of storms of increasing severity, toxic oil spills, and the ravages of mining, drought, flooding and famine. Secondary English teachers must come to terms with the fact that we are beginning (re: have already begun) to reach our environmental limits on this planet, "a time when the consequences of human actions are damaging the planet's basic life support systems" (Glotfelty, 1996, p. xx). According to Ecological literacy expert David W. Orr, "Sustainability is about the terms and conditions of human survival, and yet we still educate at all levels as if no such crisis existed" (1992, p. 83). Orr goes on to state, "all education is environmental education" both by inclusion and exclusion (1992, p. 90). By what we teach or don't teach, we model to our students that they are "a part or apart from" the natural world (Orr, 1992, p. 12). What this implicitly tells our English Language Arts students, which they are receiving in most cases through exclusion, is that "our ecological relationship with our habitat is either a matter of little importance or something only relevant to 'science geeks'" (Bruce, 2011, p. 13). According to Glotfelty, "as environmental problems compound, work as usual [in

the English classroom] seems unconscionably frivolous. If we're not part of the solution, we're part of the problem" (1996, p. xxi).

But aren't issues of the natural world, the earth and its systems, best left to the domains of science? Why must we feel compelled to study the natural world in the English Language Arts classroom? In this paper, I will attempt to offer a rationale for the inclusion of the environment into the ELA classroom, and offer a plea to the profession that the natural world (and, by extension, the constructed world) is definitely under our purview, and that as teachers of English and composition, we are morally obligated to cast the earth as a main character, for only out of action can environmental justice take root and grow.

What English Teachers Do

As English Language Arts teachers, we may feel that the issues of resource depletion and increasing toxicity are beyond our prescribed scope and sequence. Yet, I would suggest that it is well within our capacity to cross over into territory once claimed exclusively by the sciences—indeed, it is our moral obligation as teachers. According to Glotfelty (2006), we must consider "nature not just as the stage upon which the human story is acted out, but as an actor in the drama" (p. xxi and we humans as "ecologically imbedded rather than immune" (Bruce, 2011, p. 14). Because English Language Arts teachers specialize in questions of "vision, values, ethical understanding, meaning, point of view, tradition, imagination, culture, language and literacy" (Bruce, 2011, p. 14), we can easily cross the arbitrary and human-constructed boundary into the sciences. Questions of vision, values, ethics and culture are, according to Buell (2005), "at least as fundamental as scientific research, technological know-how, and legislative regulation" (p. 5).

Moreover, the English Language Arts perspective "softens" the sciences where discussions of environmental degradation normally occur. One popular point of entry is Aldo Leopold's (1966) concept of a "land ethic," in which he states, "A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community [soils, water, plants and animals]. It is wrong when it tends otherwise" (p. 262). His statement is *ecocentric* (nature-centered) as opposed to *anthropocentric* (human-centered), and here is where the English Language Arts can find entrée into the sciences. By studying literature and composition in ways that notice both human and non-human species, we promote empathy for all, including soil, water, and air, upon which all life depends (Bruce, 2011). By tackling issues of environmental degradation (or, conversely, celebration), English Language Arts can focus on how *humans* are affected by human action and on how the whole of biota (including, but not favoring, humans) is affected.

Another natural cross-over point of English Language Arts into the sciences is through the discipline of ecology. According to Dobrin & Weisser (2002), ecology can be defined as "a science that evolved specifically to study the relationships between organisms and their surrounding environment" (p. 9). They define the relatively new

field of ecocomposition as a study of relationships: "Relationships between individual writers and their surrounding environments, relationships between writers and texts, relationships between texts and culture, between ideology and discourse, between language and the world" (p. 9). Here, Dobrin and Weisser are explicit in their use of the term "environment," in that it is more encompassing than merely "nature." "We mean all environments: classroom environments, political environments, electronic environments, ideological environments, historical environments, economic environments, natural environments" (Dobrin & Weisser, 2002, p. 9). As English Language Arts teachers, we deal daily in the study of discourse (speaking, writing and thinking), and that means studying the relationship between discourse and any site where discourse exists, be it natural, constructed, or imaginary.

Ecocomposition, Ecoliteracy and the "Greening" of English

The curricular responsibilities of English Language Arts teachers can be broken down into two main categories: reading and writing. They can be further dissected into reading different authors and genres, and writing for different audiences and purposes. Critical theories such as race, gender, class and culture have dominated the post-modern English Language Arts curriculum. Two new curricular approaches suggest that place be added as a new critical category. The first is "ecocriticism," defined as "the study of the relationship between literature and the physical environment" (Glotfelty, 1996, p. xviii). Glotfelty (1996) explains that "Just as feminist criticism examines language and literature from a gender-conscious perspective, and Marxist criticism brings an awareness of modes of production and economic class to its reading of texts, ecocriticism takes an earthcentered approach to literary studies" (p. xviii). Questions such as "How is nature represented in this sonnet?" and "What role does the physical setting play in the plot of this novel" inform the focus of ecocriticism. Whereas ecocriticism is concerned primarily with the *interpretation* (i.e. reading) of text, a second theory, ecocomposition, is concerned primarily with the *production* (i.e. writing) of text (Dobrin & Weisser, 2002), understood to include not only the printed word, but also visual and natural texts (or contexts). In this sense, the concept of language (discourse) is broadened, so that "language does not exist outside of nature," and that language (discourse) is "the most powerful, indeed perhaps the only tool for social and political change" (Dobrin & Weisser, 2002, p. 26). Indeed, following this line of thinking, writing = power.

But how could we best frame a curriculum based upon these two new critical theories of reading (ecocriticism) and writing (ecocomposition)? The broader concept of ecological literacy might be useful for helping to locate nature in the English Language Arts. Orr (1992) suggests that, "Literacy is the ability to read. Numeracy is the ability to count. Ecological literacy...is the ability to ask, 'what then'" (p. 85)? "What then?" would, according to Orr, be an appropriate question to ask "before the last rainforests disappear, before the growth economy consumes itself into oblivion, and before we have warmed our planet intolerably" (p. 85). One could just as easily ask, "Why should I care?" Or, "How does this affect me?" The English Language Arts skills of close observation and

making connections must be brought into practice if we are to adopt an ecological literacy framework. To help us construct that framework, a framework that asks us to step outside of our minds and out into nature, Orr (1992) suggests six principles, or frames of mind, that we would do well to introduce to our students:

- 1. "[A]ll education is environmental education" (p. 90).
- 2. "[E]nvironmental issues are complex and cannot be understood through a single discipline or department" (p. 90).
- 3. "[F]or inhabitants, education occurs in part as a dialogue with a place and has the characteristics of good conversation" (p. 90).
- 4. "[T]he way education occurs is as important as its content" (p. 91).
- 5. "[E]xperience in the natural world is both an essential part of understanding the environment, and conducive to good thinking" (p. 91).
- 6. "[E]ducation relevant to the challenge of building a sustainable society will enhance the learner's competence with natural systems" (p. 92).

Although all of Orr's Principles are useful guides towards an ecological English Language Arts curriculum, the first two are most directly and easily applied through a place-based pedagogical approach.

The Power of Place: Place-Based Writing

A place-based education incorporates the concept of "place" or "environment" as an integrating context across multiple disciplines (Sobel, 2004). Place-based education can be characterized by "interdisciplinary learning, team-teaching, hands-on experiences that center on problem-solving projects, learner-centered education that adapts to students' individual skills and abilities, and the exploration of the local community and natural surroundings" (Bruce, 2011, p. 21). We can use our local places, environmental issues (and all issues are environmental), and peoples' natural love of nature, or "biophilia" (Wilson, 1984) "...to improve English education, literacy, and citizenship" (Lundahl, 2011, p. 44). Keeping in mind Orr's (1992) first two principles of ecological literacy, we can see how a place-based pedagogy is a natural fit for the English Language Arts.

Orr's (1992) first principle of ecological literacy, that "All education is environmental education" (p. 90) may at first seem hyperbolic, but is indeed accurate. When combined with the pedagogy of place-based education, this principle takes flight. According to Sobel (2004), place-based education:

...is the process of using the local community and environment as a starting point to teach concepts in language arts...and other subjects across the curriculum. Emphasizing hands-on, real-world learning experiences, this approach to education increases academic achievement, helps students develop stronger ties to their community, enhances students' appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens. (p. 7)

Sobel's (1992) emphasis on the cross-curricular nature of place-based education highlights Orr's (1992) second principle of ecological literacy, which states that, "environmental issues are complex and cannot be understood through a single discipline or department" (p. 90). By using local places as sites for linking the arts and the sciences, students make connections, and when students make connections to a place, that place becomes more personal. Place-based writing projects encourage students to more fully commit to a topic, which can allow for a more authentic writing experience. Indeed, "meaningful writing both grows out of and reflects back on a connection with place" (Jacobs, 2011, p. 51). By providing our students with unique, authentic experiences in their own communities, we can begin to harness the elusive quality of "voice," along with providing authentic reasons and audiences for writing.

Heeding Student Voice

Taking a place-based, eco-literacy approach to the language arts can be a weighty, sometimes depressing task. The new term "solastalgia" describes the "sense of loss people feel when they see changes to local environments as harmful" (Bluestone, 2011, World Changing, p. 449). Reading the headlines today, students must be concerned with a wide array of environmental issues, some which affect them directly (increasing gasoline prices, local flooding) and some of which affect them indirectly (the melting of the polar ice caps). In order to avoid this feeling of eco-nihilism, Owens (2001) suggests that:

Educators have a responsibility to help students resist the cynicism and hyperbordom of contemporary consumer culture...[we must] give them opportunities to testify about what is wrong and what is good about those worlds...[and] provide them with a vocabulary with which they might critique their environments and develop an awareness of what exactly it is...that can make a person miserable, bored, angry, tired, scared, depressed. (p. 69)

This concept of testimony fits nicely into the more personal structure of place-based writing. As Freire (2000) states, the purpose of education is for students to "develop their power to perceive critically *the way they exist* in the world *with which* and *in which* they find themselves" (p. 83, emphasis in original). To bring about lasting change, both

reflection and action are needed; the word and the world are inseparable. Personal experience can often be considered the best evidence when building a rhetorical argument. According to Matalene (2000):

Most students quickly learn that the easiest, safest, least risky method is to keep private and public separate. This seems to me seriously wrong...we should be encouraging many voices, not turning them all into one. Surely, teaching students that they have the right and the responsibility to add their own unique voices to the American conversation is why we teach writing anyway. Surely, we want to strengthen their individual, private voices so that one day they may speak, not just listen, and act, not just watch. (pp. 188-9)

Matalene articulates the fundamental rationale for encouraging students to write from their experience, "It honors their voice, encourages their efforts, and, ultimately, follows Freire's idea of praxis from reflection to action, to make better citizens" (Jacobs, 2011, p. 51). Certainly, the uniqueness of experience + place = voice. Additionally, when framed within a place-based, ecocompositional curriculum, students are afforded more authentic reasons to read, write, think and take action.

Response to any crisis is often technological, and with the goal of solving the immediate problem. But what if the response to how climate change is affecting the lives of middle and high school students was more reflective in nature, and focused on writing and thinking specifically about place? The following section examines a specific assignment that asked students to look closely at their unique communities and tell their own stories, through words and photos, of how climate change has impacted their lives. This assignment is an invitation to think about something that these students earnestly need to think about, something that is troubling to them, and to, "use English class and writing as a vehicle for discovery" (Ruggieri, 2000, p. 53).

First Person Singular Project: The Marriage of Ecocomposition and Place-Based Education

In my experience as a middle school Language Arts teacher, and now a teacher educator, I often come to the conclusion that my students learn best from, a) studying topics that are of interest to them, and, b) from one another. Thus, I created the *First Person Singular project*, where I ask middle and high school students to use text (both written and visual, through the use of photographs) to tell a story, in this case, the story of how climate change is having a direct affect on their lived experience. It is my contention that teens (and often, adults) will listen more closely if a story of such immense consequence as the degradation of our planet is told through the eyes of peers.

To begin, I ask students to photograph evidence of climate change that they may see in their own neighborhoods. In Kwigillingok, Alaska, this means photographing the damaging effects of the melting permafrost beneath their homes. In Tsetserleg, Mongolia, this meant photographing evidence of unusually harsh winters. In Burlington, Vermont, this meant photographing local flood damage due to unusually heavy rains. By locating problems in specific places, the project takes on an immediacy and an authenticity that can only be achieved through a place-based pedagogy.

After students have collected their photographic evidence, they are asked to write about what they photographed, and why they think it is a good example of how climate change is affecting their lives. In nearly every instance, the physical manifestation of a changing climate is deeply personal. In Alaska, for example, students wrote about how their homes were sinking due to the melting of the permafrost beneath their feet. Their photos and their accompanying writing illustrated homes that had to be propped up by concrete cinder blocks to remain somewhat level. One student's essay explained how his community has already had to move once due to shoreline erosion, and he did not want to have to move again. "We can't leave," he eloquently stated, "but we can't stay, either." In Vermont, climate change looks quite different. Two months before I worked with these students, a hurricane swept up the East Coast, leaving Burlington soggy amidst floodwaters not normally seen so far inland. Several students chose to write about how the destruction of the city's bike path impacted them. Since bicycles are their primary mode of transportation, they felt cut off from the world when the floodwaters tore apart the path. These stories are perfect examples of how the ecological relationships between humans and their surrounding environments are dependent and symbiotic. Through discourse (in this case, writing) these students were able to shape their experiences, using the power of the word in naming the world around them, and their experiences in it.

After photographs have been taken and words have been written, I ask students to read their writing aloud, into a digital recorder, so that their voice (quite literally) can be heard. I believe this to be the most powerful aspect of the entire First Person Singular project—the platform it provides to literally hear students' voices. When combined with the photographs, the audience begins to gain a sense of who these students are, as individuals, and why what matters to them should matter to us as well.

All elements of *The First Person Singular* project (photos, writing, and audio) are then entered into a video production program (in this case, iMovie) to be made into a digital story. For the purposes of the First Person Singular project, digital storytelling can be defined as a multimodal activity combining written, oral, visual and gestural symbols into digital representations, such as videos, short films, feature-length films, or photo montages. Thus, digital storytelling is an ever-evolving method of artistic and academic expression, often told in the first-person narrative form (hence the name of the project). Content is most often drawn from personal experiences that are deemed important by the students involved in their creation. Through this project, students are reminded that the source of their power lies in their own story, in the earth, and the relationship between the

two. Hence, students must learn to tap into and trust the truth of their own lived experiences. An example of "First Person Singular: Alaska" can be seen here: http://www.youtube.com/watch?v=T4qPa2xIU4o

Once students have engaged in a project that has affected them personally, they might feel the urge to take on an issue of local importance—the pollution of their local watershed, the air quality in their particular neighborhood, or the safety of their local food supply. Any number of social-justice themed projects cold be similarly told, using the combination of text and photographs, to illustrate how everything is connected to everything else, and to create a civic competence that tends to be lacking in our schools. One recent example is the publication of "Dream fields: A peek into the world of migrant youth." In this book, migrant youth from Washington state share their stories, through words and photos, of the conditions they find working in the damp fields of Washington's commercial tulip industry.

Toward an Environmental Justice

As teachers, regardless of grade level or discipline, we must constantly ask ourselves, "Why?" Why do we do what we do, and what results do we hope to see because of it? The answer, I believe, lies within our belief that it is our moral and ethical obligation to do so, to model for the citizens of tomorrow how to think creatively, holistically and put their learning into practice. We want our students to eventually outgrow their need for us, to trust their own experiences as valid, and continually learn from them. Personally, I would add that I do what I do because of my own biophilia, or love of life—all life—in its myriad forms. I want my young daughter to have the same ecological opportunities that I have had—to come face-to-face with massive glaciers, to share a meal with a nomadic Mongolian family, to see the Milky Way on a clear, cool night, to experience autumn in New England, to hear an orca breathing. And I don't just stop at my own daughter—I want every child, regardless of place—to have the opportunity to experience environments and cultures that are different from their own, before those environments and cultures disappear.

So, where do the English Language Arts fit in? Why the emphasis on "greening" the humanities? According to Jensen, "Far too many of us have forgotten, or never knew, that words can be used as weapons in service of our communities. Far too many of us have forgotten, or never knew, that words *should* be used as weapons in service of our communities" (2012). Some say that literature should be apolitical, and that the English classroom (or any classroom, for that matter) is not the place for politics. Well, thank goodness Rachel Carson wasn't apolitical. Thank goodness Mark Twain wasn't apolitical. Jensen (2012) states it well:

I would not be who I am and I would not write what I write without having learned from some of my elders who refused to believe that writers should or can

be apolitical or neutral or objective. The truth is most important, they said. It is more important than money. It is more important than fame. It is more important than your career. It's more important than your preconceptions. Follow the truth—follow the words and ideas—wherever they lead. Words matter, they said. Art matters. Literature matters. Words and art and literature can change lives, and can change history. Make sure that your words and your art and your literature move people individually and collectively in the direction of justice and sustainability. They said literature that supports capitalism is immoral. A literature that supports patriarchy is immoral. A literature that does not resist oppression is immoral. But you can help to create a literature of morality and resistance, as each new generation must create this literature, with the help of all those generations who came before, holding their hands for support, just as those who come after will need to hold yours.

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