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Fostering Critical Thought Alongside the Common Core State Standards

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Fostering Critical Thought Alongside the Common Core State Standards

by

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Portland State University

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Abstract

This thesis evaluates a segment of the second grade English language arts and literacy (ELA) curriculum presently utilized in Portland Public Schools (PPS) school district in Portland, Oregon, using five principles for evaluation. These principles address the extent to which lessons are hands-on, engage home life, integrate the academic disciplines, encourage student autonomy, and are relevant to society today. These criteria were established following a review of John Dewey’s ideas and philosophies, and of two practices that model Deweyan principles: Project-Based Learning (PBL) and progettazione in the Municipal Infant/Toddler Centers and Preschools of Reggio-Emilia, Italy. This analysis of the ELA curriculum in place today makes many recommendations to strengthen its alignment with these five principles, but ultimately notes time-constraints and the necessity for desk-work to be its most limiting factors.
Introduction

As a student of psychology and education, I unceasingly ask myself what is paramount in helping children not just retain information, but also be able to apply such knowledge in upcoming life encounters. The purpose of this paper is to explore this question, through both theoretical texts and practical applications. Traditionally, student aptitude and understanding is measured through written assessments, which inform the standards and benchmarks at the school, district, state, and national levels. I intend to examine these standards as they pertain to fostering critical thinking skills, and assess how the provided curriculum can best be utilized to meet these needs.

My first time in a classroom as an educator was a challenge that demanded substantial patience. I had studied education as an academic discipline, and had been a student for over a decade, but teaching was an unpredictably novel experience. It was the first semester of my third year as an undergraduate, and I chose to study abroad via an internship at a kindergarten through twelfth grade, environmental, bilingual, private school in Costa Rica. There I was the student teacher in the school’s fourth grade classroom of 12 students. The circumstance could not have appeared any more ideal.

Looking back, I realize that at that point in my academic career I hadn't yet taken a solid stance on classroom pedagogy and policy. My views and opinions were, for the most part, regurgitations of my previous professors' beliefs. These were the same professors who had recommended that I apply for the program in Costa Rica, speaking very highly of the school itself. I began the semester believing that I would be working under a progressive model, focused on individualized, child-centric learning, which seemed more than possible in light of the spectacular student-teacher ratios. These presuppositions clouded my ability to think critically
and initially blinded me to the contradictions as they presented themselves. The most prominent of these contradictions was in the way that student progress was measured and evaluated.

One of my first tasks as a student teacher was converting student reading levels and all of the books in our classroom and school libraries from previously calculated Fountas and Pinnell (2010a, 2010b) guided reading levels to Reading A-Z (Klein, 2008) levels, which was to drive the literacy curriculum from that point forward. I was additionally responsible for continual assessment of my students using Reading A-Z measures throughout the remainder of my time there. In general, I enjoy checklists, so I completed these tasks without questioning the measures more deeply; I like fitting things into coded boxes because you can look back at all that you have accomplished and see exactly how much is left to complete. It’s reaffirming and felt like a grand achievement when all was said and done, at least at first.

This same sense of pride appeared about a month later when I began teaching my own unit. In charge of the development of mathematical skills in multiplication and division with 2-digit products and dividends, I was provided with a list of benchmarks (set forth by the school) that each student was expected to meet before advancing to the next grade. Using the classroom’s lead teacher as my primary resource, I developed a series of lesson plans and modes of measurement that addressed each of these benchmarks. I designed the unit to take place over two weeks; the first week of the unit devoted to multiplication, with division incorporated during the second week. Multiplication was taught through the use of arrays, drawings, and repeated addition, with the intention of using these same strategies for division, only in reverse. The reason for this particular model was to emphasize the inverse property between these two operations. I needed my students to understand, visually, that multiplication is the putting together of equal sized groups and that division is the taking apart of equal sized groups.
As I previously implied, the first half of my unit was a greater success than I or my lead teacher could have anticipated; the students were not only completing their individual work correctly, but also more rapidly than they had throughout previous mathematical units of that same year. For an additional bonus, by my fifth day I had already checked off every student on five of the seven benchmarks. Unfortunately on the following Monday, when I introduced division, I observed monumental obstacles.

I began my lesson by working through a multiplication word problem and its inverse division problem with the class. We then transitioned into guided practice, where students worked in pairs to solve a similar problem while remaining in the classroom meeting area—a square section of the room where students sit together on the floor either in a circle, in groups, or in front of the teacher and/or other presenter. As I watched the students work with their manipulatives (tools used by teachers to facilitate learning through material examples) everything appeared to be in perfect order. Once everyone had come to a solution, we regrouped so that each pair could share their processes and findings; it was in this moment that my once seemingly structured lesson collapsed.

In solving the word problem that asked them to divide fifteen by three, each pair of students had been given interlocking cubes, and each pair successfully grouped their cubes into three groups of five—this is important as opposed to five groups of three, which would not have demonstrated accurate understanding of the problem’s word structure. So what was my dilemma? The entire class whole-heartedly agreed that the equation they had solved was fifteen multiplied by three, and that fifteen, three times, equaled five. I had no words and was absolutely befuddled about how to proceed.

I ultimately threw out individual practice, where students work independently on a series
of like problems, in order to further emphasize, in less technical terms, what I considered to be common sense: That when multiplying whole numbers, a product will always be greater than its factors, and, when dividing whole numbers, a quotient will always be less than its dividend. This was primarily accomplished through associative hand motions where multiplication was expressed as “pushing together,” and division as “pulling apart.”

Needless to say, I was more than nervous going into reflection with my lead teacher during that day’s planning period. However, her observation was not in fact related to my teaching strategies, but rather to the structure of the school in which we worked, “We’re not producing critical thinkers.” She vocalized what is a constant obstacle in the classroom: Students consistently producing the correct answer, but unable to explain their thinking as to how or why their solution works. When a student makes a mistake, it is easy to pinpoint their error and show them what needs to be done to remedy the problem; but when a student does something correctly, relying only on a learned pattern, it is incredibly difficult to re-integrate a foundation. My students were being taught to memorize facts rather than building an understanding.

This is a central challenge in education today, one that juxtaposes two prominent theories of development: Behaviorism and constructivism. Behaviorism was set forth by Watson (1913, 1998/1924), and most notably furthered by Skinner (1974). “The behaviorist asks: Why don’t we make what we can observe the real field of psychology? Let us limit ourselves to things that can be observed, and formulate laws concerning only those things” (Skinner, 1998/1924, p. 6). With regard to child development, these three observable factors are the environment of the child, the behavior of the child, and the consequence (positive or negative) of such behavior (Siegler, DeLoache, & Eisenberg, 2011; Gazzaniga, Heatherton, & Halpern, 2010).

In contrast, constructivism, profoundly influenced by Piaget (1950, 2002/1926,
2007/1929), looks at the processes within the mind rather than influences outside of it. This approach “depicts children as constructing knowledge for themselves in response to their experiences. Three of the most important of children’s constructive processes, according to Piaget, are generating hypotheses, performing experiments, and drawing conclusions from observations” (Siegler et al., 2010, p. 130). These processes are, in essence, the act of thinking critically. Unfortunately, when we look solely at what is observable through assessment checkboxes and right answers, as behaviorism tends to do, the internal actions of the mind are not acknowledged, and, as a result, not strengthened. Whereas in constructivism, the learner may have a theory and test that theory out in the “real” world to find that their theory has a flaw. These mis-taken representations may look as if the child didn’t understand but if they apply their learning to new situations, they demonstrate their internalized constructions of knowledge as they move along in experiences. This takes a keen eye and ear to listen and look for the learning living alongside of the learner, encouraging their critical thinking.

Moving forward in my teacher preparation, many questions have arisen as I reflect upon my initial experiences in Costa Rica. I wonder about critical thinking skills, and how these might be promoted or hindered by the benchmarks set forth under the Common Core State Standards. In this paper, I intend to explore critical thinking as it is addressed in pedagogical theory, primarily through the lens of Dewey (1990/1902). Dewey was my first introduction to the field of education as an area of study, and reading his work resulted in immense reflection on my own experiences as a student. What I related to most plainly, however, was an encounter Dewey had with a salesman while searching for school furniture:

Some few years ago I was looking about the school supply stores in the city, trying to find desks and chairs which seemed thoroughly suitable from all points...
of view—artistic, hygienic, and educational—to the needs of the children. We had a great deal of difficulty in finding what we needed and finally one dealer, more intelligent than the rest, made this remark: “I am afraid we have not what you want. You want something at which the children may work; these are all for listening.” That tells the story of the traditional education. (Dewey, 1990/1902, p. 31)

In reading this statement, I was able to define what differentiated positive school years from the negative, and found that my favorite classrooms growing up appeared fully democratic and were rich with tactile learning experiences; they were constructivist classrooms where we were learning through living, rather than listening. This is why I hope to better understand Dewey’s theories, so that I might better implement them in my own practice and perhaps even influence the practice of others. Following this brief introduction to Dewey will be a review of pedagogical approaches in place today that depict his principles. Then, in end, I will analyze a portion of Portland Public School’s (PPS) Common Core aligned English language arts and literacy (ELA) curriculum; assessing how to use it to better foster critical thinking, the feasibility of such proposals, and their implications.

**Literature Review**

The foundation of the research supporting this project encircles the ideas and principles set forth by Dewey (1990/1902) in his two seminal texts with regard to teaching and academia. Dewey’s essays were greatly influenced by the work of his lab school in Chicago Illinois. As Jackson tells us in Dewey (1990/1902), the school called upon many “to abandon pedagogical practices that were considered by many to be tried and true—activities such as drill, recitation, rote memorization, lecturing…and much else that had become routinized and habitual in most
schools” (p. xxxii). Unfortunately, many of these tried and true methods remain primary in the U.S. public school system today, more than a century later, despite Dewey’s suggestions and successes.

It wasn’t so much that Dewey was asking for the traditional outcomes of schooling to be abandoned. He supported the necessity of acquiring quite a lot of factual knowledge, for example. But what he did insist upon was that many of these traditional goals could be better achieved if treated secondarily, which meant being subsumed under a broadened vision of what education was all about. (Jackson in Dewey, 1990/1902, p. xxxii-xxxiii)

Fortunately, there are present-day exceptions to these traditional models, which are undeniably influenced by Dewey’s work. Two of the most prominent are Project-Based Learning and the Municipal Infant/Toddler Centers and Preschools of Reggio Emilia, Italy, where they say using Dewey’s model of two teachers in each classroom and engaging parents in classroom pedagogy is essential to democracy (Edwards, Gandini, & Forman, 1998).

**Project-Based Learning**

Project-Based Learning (PBL) highlights student choice, open-ended investigations, service learning, place-based projects, extensive reflection, and authentic assessment through final presentations followed by peer, teacher and administrator questions and feedback (Boss, 2012). Most importantly, PBL is a learner directed method, explained by Koschmann, Kelson, Feltovich, and Barrows (1996) as lessons in which “the student must identify what he or she needs to know, what resources are need, and the most efficient use of those resources” (p. 116 as cited by Koschmann, 2001, p. 357). This by nature demands—and therefore strengthens—
critical thinking skills, forcing the students to figure out *and confirm* the answer for themselves, as opposed to being told whether they are correct or incorrect, with little explanation as to why.

One of the central advocates, developers, and providers of curriculum under this method of instruction is the Buck Institute for Education (BIE). According to their website, in PBL, Students go through an extended process of inquiry in response to a complex question, problem, or challenge. While allowing for some degree of student ‘voice and choice,’ rigorous projects are carefully planned, managed, and assessed to help students learn key academic content, practice 21st Century Skills (such as collaboration, communication & critical thinking), and create high-quality, authentic products & presentations. (*What is PBL?,* 2012)

This *complex question, problem, or challenge* is put before the students in the form of what is referred to as the driving question. This driving question is best structured when broken into four parts: framing words, person or entity, action or challenge, and audience or purpose (*Driving Question Tubric 2.0*, 2015) (For further examples of driving questions under this structure, see Appendix A: BIE Tubric).

One of the most notable examples of PBL is detailed in Schultz (2008), which chronicles his first year teaching fifth grade at an urban, minority-majority, low-income school in Chicago, Illinois. The year begins with students who cannot participate in class work because it requires taking off their gloves in order to use a pencil—not only is the heater broken, but so are the classroom windows (p. 31, 59). These and other inequalities inspire a yearlong, fully democratic project, in which the students reached out to officials, in the hopes of rebuilding their school.

Every subject lost its compartmentalization, becoming integrated and integral in solving the problem. Reading, writing, arithmetic, and social studies were all
blended together…Their search took them to texts beyond their reading level aptitude, but they were willing to put forth the effort because it had value to their situation. (p.7)

Three years later, Schultz’ students completed the eighth grade, four of whom with honors and two were able to skip the seventh grade due to high marks. Another went on to win a district-wide spelling bee, though these are just a few of their accomplishments, in addition to achieving their goal of building a new school (p. 156-157). This example is clearly one-of-a-kind, and it is true that not every class will have such communal interests, but it is important to note that intrinsic determination not only caught these students up academically, where they began a year or more behind, but also allowed them to excel in future pursuits.

Schultz’ story is exclusively about one classroom, but there are many school-, district- and city-wide implementations of PBL. These include Mesquite Elementary School in Vail, Arizona, Robious Middle School in Midlothian, Virginia, New Tech in Ruston, Louisiana, the Akula School in Kasigluk, Alaska, Heartland Community School in Henderson, Nebraska, the Environmental Middle School in Portland, Oregon, and 11 public charter primary and secondary schools throughout San Diego County, California, among others (Boss, 2012; Smith, 2002). Additionally, the city of Philadelphia has implemented Project-Based Learning in more than 180 of their out-of-school time programs. Since 2009, the Philadelphia after-school programs have completed nearly 1,700 projects, the majority of which deal with the core subjects being taught throughout the regular school day (Schwalm & Tylek, 2012).

These many programs and their successes demonstrate the practical applications of Dewey’s ideals today. Learning through projects of personal importance to classroom communities results in more focused attention to class goals, deeper understanding of academic
content, and first-hand experience in applying this knowledge to real-world circumstances. Furthermore, the demand for students to reflect on their learning processes, and ways in which their beliefs alter throughout the progression of any given project, leads to a more defined approach, with greater awareness of intellectual biases that might hinder future comprehension. Similar to PBL, are the Municipal schools of Reggio Emilia, Italy and their approach to progettazione, which also involves long-term student and community inspired projects that are rich with periods for reflection and regeneration.

The Municipal Schools of Reggio Emilia, Italy: Progettazione

The Municipal Infant/Toddler Centers and Preschools of Reggio Emilia, Italy also take a constructivist approach to education, which “acknowledges that [these schools] value the contributions of children in the development of their own knowledge and reflects a belief that knowledge is constructed with others” (Edwards et al., 1998, p. 407-408). Their approach is initially influenced by Piaget’s theories and then more recently quite heavily influenced by Vygotsky’s social constructivism and viewing the community in relationship to the child and their group learning experiences (Edwards et al., 1998). Furthermore, the Municipal Schools hold a very powerful and inspired image of the child; Rinaldi (2006) explains this image in four parts:

- A child who is fully able to create personal maps for his own social, cognitive, affective and symbolic orientation.

- A competent, active, critical child; a child who is therefore ‘challenging’, because he produces change and dynamic movement in the systems in which he is involved, including the family, the society and the school. A producer of culture, values and rights, competent in living and learning.
• A child who is able to assemble and disassemble possible realities, to construct
metaphors and creative paradoxes, to construct his own symbols and codes while
learning to decode the established symbols and codes.

• A child who, very early on, is able to attribute meanings to events and who
attempts to share meanings and stories of meaning. (p. 81-82)

Through Rinaldi’s view, the curriculum that presents itself is better defined as an ongoing
project, because, “the term ‘curriculum’ (along with the corresponding terms ‘curriculum
planning’ or ‘lesson planning’) is unsuitable for representing the complex and multiple strategies
that are necessary for sustaining children’s knowledge-building processes” (Rinaldi, 2006, p.
132). This approach transpires in a way very similar to Project-Based Learning, where the
children pose a question, or express a curiosity, and together, with their teacher as guide or
facilitator, set out in search for an answer, explanation, or solution. Through the development of
these projects, further questions often result, which are deeper and more intricate in nature,
enacting critical thinking and an open stance toward inquiry.

In the Municipal schools of Reggio Emilia, the process that these projects undergo is
referred to as progettazione, and as Parnell and Helm (2010) point out,

Progettazione can take many forms and has no clear English corollary. It is
similar to an architectural plan that develops with a lot of people and over time; it
projects forward the curriculum ideas at hand. In this way, the curriculum can
emerge and be negotiated between children, parents and teachers. Progetazzione
can be environmental, daily life, or self-managed. These study-projects evolve out
of an emerging curriculum, that which is based on the surfacing of children’s
interests. (p. 3)
These study-projects, as explained here, directly mirror the world outside of the school, and are intended to greatly influence future pursuits. Wurm (2005) explains, “Projects are ways of doing work with children that in effect simulate real life” and further emphasizes this point as she reflects on her first day in Scuola dell’Infanzia Pablo Neruda, where “Mara Davoli paraphrased one of Loris Malaguzzi’s sayings: There is no preschool, just as there is no pre-life. Our students are at school and are learning things that will serve them throughout their lives” (p. 68). This is a very important point, demonstrating that in the Municipal schools of Reggio Emilia, Italy, the children are viewed as citizens in the present as opposed to citizens of the future.

One application of the Reggio approach in the United States involves fifty educators in St. Louis, Missouri, who were inspired by The Hundred Languages of Children exhibit, which visited St. Louis in 1991 (Fyfe, 1994). Though the educators work in different schools, both public and private, and “have come into the project with different backgrounds of experience, levels of education, and understandings of constructivism” (p. 21), they are working together through various modes of professional development toward common goals. Namely, environmental change, establishing stronger connections between the classroom and home, slowing down, listening, greater collaboration among teachers, defining the line between scaffolding and interference, and providing an emergent curriculum (Cadwell, 1997).

More recently, Gandini, Etheredge, and Hill (2009) have given definition to Reggio-inspired practices through important narrative works from educators in schools across the U.S. attempting to spread important ideas about work outside of Reggio Emilia, Italy; work that has been similarly adapted but into locally situated and culturally relevant ways. More examples of Reggio-inspired work continue to appear and, for example, even in my own University’s lab school through Parnell’s research (2005, 2011, 2012). Numerous other scholars and educators
around the world such as from Canada, Australia, New Zealand, Japan, and over 100 other countries, as well as policy makers and politicians are inspired by the Reggio Emilia Municipal Schools’ work and research (see www.reggiochildren.it for more data on their international network).

These many implementations of Reggio-inspired practices, much like those of PBL, again demonstrate the practical applications of Dewey’s ideals today. Moving forward, it is pertinent to keep these methods and practices in mind when taking a look at the Common Core State Standards, and to what extent teachers will be able to integrate the admirable pedagogies of PBL and progettazione while still addressing and meeting the benchmarks set before them.

The Common Core State Standards

Conceived of in 2009, the Common Core State Standards are an initiative managed by the Council of Chief State School Officers and the National Governors Association Center for Best Practices; Together, the mathematics and English language arts and literacy (ELA) standards “were created to ensure that all students graduate from high school with the skills and knowledge necessary to succeed in college, career, and life, regardless of where they live” (About the Standards, 2015). As of the 2014-2015 academic year, the standards have been adopted by 43 states, in addition to the District of Columbia, four U.S. territories, and the Department of Defense Education Activity (About the Standards, 2015).

Standardized test scores have been a driving force in school reformation throughout the past several decades (McClung, 2013; Meier, 2002; Ravitch, 2010; Smith & Szymanski, 2013) and the introduction of this new set of standards has many voicing the opinion that the Common Core “will push schools and teachers to be even more focused on high-stakes tests and that it will be implemented as a list of items to ‘cover’ rather than as a lattice on which strong teaching and
learning must be woven” (Russell, 2012, p. 50). Ohler (2013) also holds such an opinion, and additionally believes that such a test-driven culture “fails to support the United States’ reputation for creativity in the global community” and “pursues limited notions of intelligence at the expense of developing the skills of innovation” (p. 43). Ohler argues for the need to emphasize creativity and critical thinking skills in the classroom, and contends that these are not satisfactorily addressed by the standards. Proponents for the Common Core, however, stress that these elements are related rather to methodology than content, and that the standards are not a curriculum but instead a foundation to be built upon by teachers influenced by the needs, abilities, and interests of their students (Russell, 2012).

Russell (2012) continues, stating that fearing the standards, as the dominant conversation surrounding them appears to, can only result in treatment of the standards as “a list to be learned,” which will “ignore the need to weave coherent course of instruction into its framework, and put in place strategies designed only to get students through the next test rather than to build reliable concepts and skills” (p. 56). Opponents and proponents alike can agree that this is not an ideal circumstance, or in any way the purpose of the Common Core State Standards Initiative. Nonetheless, it causes me to wonder, how can we treat the standards as a lattice on which strong teaching must be woven, and ultimately weave the coherent course of instruction that will result in greater achievement for all students and best foster critical thinking skills? This thesis research is but a small glimpse into the possible solution, looking at a Common Core aligned ELA curriculum that is presently used in schools today, and assessing the extent to which these goals are attainable through such lessons.

**Literature Summary**

After reviewing pertinent literature on Project Based Learning and the Reggio Emilia
approach on progettazione, I find that what is pertinent across both approaches is that learning is experiential, interdisciplinary, related to home and society, and supports student autonomy. These aspects have had promising impact on the students, and should be encouraged in more pedagogical models. Looking to the Common Core, it is important to assess whether or how Dewey’s ideals might be attained, while still meeting the standards set forth by the state.

These various aspects of the literature help me to think about my methodology, especially in my final wondering about the Common Core as I suggest it would offer critical thinking using PBL and adapting aspects of Reggio’s progettazione approach. To more specifically determine a course of action based on the literature, I make a methodological proposal to my research next.

**Methods**

What I propose here is an analysis of lessons aligned with these standards through the lens of Dewey’s (1990/1902) approach to democratic and project oriented schooling. The intention of this project is to evaluate the extent to which the curriculum aligned with the Common Core State Standards in English language arts and literacy (CCSSELA) presently used by the Portland Public Schools (PPS) School District in Portland, Oregon fosters critical thinking skills in its students. Inspired to do well by Dewey’s (1990/1902) work, I have formulated five guiding principles as a measure. These principles are elements I consider to be instrumental in any class instruction led today.

First and foremost, as Dewey (1990/1902) points out, learning must be *experiential and hands-on*.

No number of object-lessons…can afford even the shadow of a substitute for acquaintance with the plants and animals of the farm and garden acquired through actual living among them and caring for them. No training of sense-organs in
Dewey’s emphasis here is on the alertness required for such experiences, compared to the passivity necessary for reading and lecture. Grounding concepts and ideas in sensory memory not only makes them more interesting, these hands-on experiences result in longer, deeper understanding.

Second, lessons must center on a conversation between school and home. Dewey (1990/1902) explains that “the great waste in the school comes from [the child’s] inability to utilize the experiences he gets outside the school in any complete and free way within the school itself; while, on the other hand, he is unable to apply in daily life what he is learning at school” (p. 75). Students should instead be encouraged to draw on experiences that occurred outside of the classroom, and learned-material should be easily applied in future life events. This bilateral experience makes learning more relevant, important, and interesting for the child.

Likewise, lessons must also center on a conversation between different academic disciplines, commonly understood as interdisciplinary studies or an integrated curriculum. We do not have a series of stratified earths, one of which is mathematical, another physical, another historical, and so on. We should not be able to live very long in any one taken by itself. We live in a world where all sides are bound together. All studies grow out of relations in one great common world. When the child lives in varied but concrete and active relationship to this common world, his studies are naturally unified. (Dewey, 1990/1902, p. 91)

The daily structure of most schools is one broken into parts based on academic subject, which are treated, in a sense, as stratified earths. However, as Dewey points out, this is not reflective of
the world in which we live. It is not only natural to use multiple skills in one setting, it is essential.

Further, classroom structure should support student autonomy and inspire self-directed learning. “When the school introduces and trains each child of society into membership within such a little community, saturating him with the spirit of service, and providing him with the instruments of effective self-direction, we shall have the deepest and best guaranty of a larger society which is worthy, lovely, and harmonious” (Dewey, 1990/2902, p. 29). The treatment of students as independent citizens of their classroom community equips the children with the confidence and ability to take responsibility for their own learning. In doing so, the children hold a stake in their own future, resulting in the development of an internal locus of control.

Finally, it is imperative that any knowledge gained is relevant to and reflective of society today. Throughout his work, Dewey (1990/1902) places great emphasis on the importance of “occupation,” which he defines as “a mode of activity on the part of the child which reproduces, or runs parallel to, some form of work carried on in social life” (p. 132). In his era, the turn of the 20th century, these occupations were practiced in schools through woodwork, cooking, sewing, and textiles, among others (p. 133). However, this should not be mistranslated into technical or trade schools. I think, rather, that Dewey would today place emphasis on 21st century skills and subject matter, such as technology in the classroom and environmental education (Ohler, 2013; Smith, 2002).

**Actionable Research**

When I set forth in this research I intended to address whether or not the five principles noted above were met by a section of an ELA curriculum currently used in a state that has adopted the Common Core Standards. However, as I set forth in my analysis, I found that my
notes were more reflective of how to teach these lessons in a way so that they meet my five principles rather than whether or not they do as written. This is primarily because the curriculum affords many liberties, and what you can attain from each component of the lesson plan directly corresponds to how much time you devote to it—whether in one sitting or as you return to it with the introduction of other parts.

This project looks at one week of the second grade ELA curriculum used by the Portland Public Schools (PPS) School District in Portland, Oregon. This grade was chosen based on personal communication with a PPS teacher who provided me with her Teacher Edition curriculum texts.

The ELA curriculum used by PPS is Reading Street (Oregon). This analysis will focus on the fourth week of the Grade 2, Unit 3: Creative Ideas book (Week 4, 2008), which addresses a series of Common Core State Standards (see Appendix B: This Week’s Common Core State Standards). Each day of lessons includes 90-120 minutes of Reading—broken into three subparts: Oral Language; Word Work; and Comprehension, Vocabulary, and Fluency. This is followed by 20-30 minutes of Language Arts, which includes Shared Writing, Grammar, Daily Journal Writing, and Daily Social Studies Connections.

Unfortunately, although the Oregon Board of Education adopted the Standards in October of 2010, the first year of full implementation is in 2014-2015 (Standards in Your State, 2015) and editions fully revised to align with CCSSELA have not yet been purchased by PPS. Instead, teachers are provided with addendums to their current texts. These include which standards are addressed within each unit, week by week.

The week analyzed this study is Week 4: Rosa and Blanca, Rosa and Blanca is the title of the independent reading, as well as the protagonists of this reading, to which all of the lessons
relate. Of the targeted standards for this week, two reflect fostering critical thinking skills and have the potential to support the five guiding principles as outlined in the Methods section. These are:

**CCSS Speaking/Listening 4.** Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences; and

**CCSS Language 5.a.** Identify real-life connections between words and their use (e.g., describe foods that *are spicy or juicy*).

There are three components of each day that are aligned with these two standards: 1) the *Question of the Day*, 2) *Daily Journal Writing*, and 3) *Daily Social Studies Connections*. (For an extended breakdown of the week, see Appendix C: Weekly Plan).

**Analysis**

In this analysis I explore three main areas from each day’s lesson: *The Question of the Day, Daily Journal Writing, and the Daily Social Studies Connections*. I assess which of my five principles are best addressed by each portion, and, when lacking, how to adjust or focus the lesson so that these principles are better attended to. At the end of my analysis I discuss its feasibility, limitations, and relationship to the literature. Finally, I move to my conclusions from this research project.

**The Question of the Day**

Each day’s English period begins with a question that is used “to discuss lesson concepts and how they relate to the unit theme” (Week 4, 2008, p. 402g-1). Week 4’s questions are as follows:

Day 1: When can creative ideas solve problems?
Day 2: Do you believe friends can have a problem today that can be solved tomorrow?

Day 3: What are some ways we can teach each other things?

Day 4: What do you think the crow will do?

Day 5: When can creative ideas solve a problem?

The Question of the Day is best suited for alignment with principles two and four, to establish a dialogue between home and school, and to encourage autonomy, choice, and self-directed learning. As the lesson opener, this is an important moment to re-establish, each day, the structure of the classroom and the role of the student within the classroom. In class discussions, students should be drawing on their own experiences as evidence supporting their reasoning and overall conclusions. The experiences relevant to these particular questions are more likely than not to have occurred outside of school, or in non-academic settings within the school. Furthermore, because the questions have no correct answers, the open-ended nature also promotes student autonomy.

The fourth and fifth questions are somewhat of an exception, as they relate more directly to the reading content. There is the possibility however, to expand on these questions in order to address other principles, namely hands-on (the first) and interdisciplinary learning (the third). The question “What do you think the crow will do?” is prefaced with a brief synopsis by the teacher, which explains that the crow, a character from their upcoming reading, is very thirsty, but her beak can’t reach inside the pitcher of water, however, she has a shrewd idea, and the children’s job is to guess what that idea is (Week 4, 2008, p. 420a). Answering this question requires making predictions, which is supported through the crosscutting concept of patterns.

Crosscutting concepts span all of the disciplines, and are especially focused on in teaching through the Next Generation Science Standards (NGSS), which the State of Oregon
adopted alongside their implementation of the Common Core (Rumage, 2014). A teacher could even integrate this lesson with their science curriculum, developing a model or experiment to test the feasibility of their ideas and predictions. This lesson would involve practicing the scientific method (see figure 1), and address the Engineering Design standard in the K-2 band that states students must be able to “Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem (K-2-ETS1-2)” (NGSS, 2013a, p. 21).

Figure 1: The Scientific Method (Lawson, 2010, p. 22)

The fifth question (When can creative ideas solve a problem?) mirrors the first (When can creative ideas solve problems?), bringing the week full-circle. While the question from Day 1 was open-ended, on Day 5 the teacher is asking the students to draw on the actual problems and solutions as experienced and created by the characters from the week’s various readings (Week 4, 2008, p. 424a). It might appear too narrow as it relates to the five principles, but this focusing is necessary in assessing whether the core content goals were met through these lessons. The relationship between these two similar questions and their different answers connects the home elements that were drawn upon the first time the question was posed to the school elements from the readings necessary as evidence in response to the second time it was asked, one week later.
**Daily Journal Writing**

The *Daily Journal Writing* occurs near the end of each lesson, and is a time for students to practice and apply their writing skills by “[writing] about concepts and literature in their journals” (Week 4, 2008, 402g-4). Each day’s prompts are as follows:

**Day 1:** Write about a time when you were generous.

**Day 2:** Write about a problem you have at school and describe an unusual way to solve it.

**Day 3:** Use at least one word from another language in sentences about Rosa and Blanca.

**Day 4:** List ways you can assist someone.

**Day 5:** Write a story about a very abundant garden.

Like the *Question of the Day*, these prompts are also best suited for alignment with principles two and four; with some capacity for hands-on learning (principle one) and real-world purpose (principle five). The journaling nature of these activities, all collected in one notebook, makes them instantly personal. Days 1 and 2 ask the student to write about something that has happened—or is happening—in their lives, and Day 4 has the potential to be a reflection on ways the student *has* assisted others, or might inspire the student to be helpful in new ways in the future.

Additionally, while the classroom setting itself—all students working quietly at their desks—may not depict student-autonomy, the prompts do promote it. In these tasks, the child is reflecting on a previous choice, made independently, and the beneficial contributions that this act made to that child’s identity and sense of self. What the student gains from the problem-solving task in particular is dependent on intrinsic motivation to actually set out and solve the problem. This is what brings us to the lesson’s potential for hands-on learning, where the activity is taken beyond the walls of the classroom.
The teacher, for example, could use these prompts for homework assignments, asking the children each time to engage in a conversation or encounter that would preface the written work. Day 1 might involve talking with the person to whom the student was generous, and relaying their account of that same event. Day 2 might have the student attempting to solve their problem in an unusual way, and the written portion could reflect on that effort. Similarly, Day 4 could also have the student setting forth in committing acts of assistance and reflection of that experience, or perhaps they could interview a number people about times others helped them.

Dewey’s principles would also highlight the importance of generosity in itself, as, for his philosophy, one of the principle purposes of education is to produce citizens who contribute to society; Dewey (1990/1902) writes, “The primary business of school is to train children in co-operative and mutually helpful living; to foster in them the consciousness of mutual interdependence; and to help them practically in making the adjustments that will carry this spirit into overt deeds” (p. 117). I would agree with him in that this is still an aim of education today, as recently advocated by McClung (2013), who analyzes the present business model of education, which “emphasizes competition, profit and individual success,” against the civic standard, which “emphasizes cooperation, community, and the greater good” (p. 38). Therefore, placing value on generous acts inherently aligns with the fifth principle.

In addressing the writing prompt for Day 3 (Use at least one word from another language in sentences about Rosa and Blanca) independently, its importance should not be overlooked. Unfortunately, the time available for this activity is limited, and would not allow for any substantial immersion in the culture of any language chosen by the students. However, it would bring the home language of all English Language Learners (ELL) in the classroom to the forefront of the lesson and allow them to share a very important part of their life with their peers.
The activity also provides an opportunity for group work, in which bilingual students can work as teachers to their monolingual, English-speaking classmates. Lastly, in relating to the larger society, the United States is a major contributor in today’s global economy, and a nation with tremendous cultural diversity. Today, there is much political clout in the field of education regarding cross-cultural experiences and understanding (Fillmore & Snow, 2000; Lynch & Hanson, 2011). In sum, the Latino story of *Rosa and Blanca*, and the Day 3 prompt’s particular emphasis on foreign language, help to reinforce for students the importance of other cultures.

**Daily Social Studies Connection**

The *Daily Social Studies Connections* by day are as follows:

Day 1: Problem/Solution Concept Chart

This chart poses three problems, and asks the students to brainstorm solutions for each.

Day 2: Geography and Southwestern Cooking

The geography activity explains the differentiation between town, country, and world (concepts/words from the reading); the Southwestern cooking activity looks at traditional Southwestern dishes and their common ingredients (ingredients grown by the characters, Rosa and Blanca, from the reading).

Day 3: Let’s Talk about the Concept

The objective of this lesson is to reinforce the connection between the plot of a story and its theme, using the week’s reading as an example.

Day 4: Write an Article

Here the students are given the task of writing an article for the school newspaper, using real-life articles as models.
Day 5: Revisit the Problem/Solution Chart

The final lesson returns to the chart from Day 1, and asks the students to reflect on the proposed problems and solutions in light of the week’s learning experiences, deciding which solutions the characters they read about might try, and what they as a class ultimately believe is the best option for each problem.

(For further information detailing these activities, see Appendix D: Social Studies Connections by Day)

The Daily Social Studies Connection is best suited for alignment with principle three, interdisciplinary learning. (It should also be noted that this portion of the day varies from week to week, alternating between the Daily Social Studies Connection and the Daily Science Connection). The strongest lessons are those from Days 2 and 4. The interdisciplinary connection from Day 3 doesn’t depart from reading and writing as well as one might hope, as discussions only address the plot and theme of the students’ reading, Rosa and Blanca. The first and final Daily Social Studies Connections from the week are also limited, but there are many opportunities provided certain alterations are made, which will be addressed in greater detail next.

Though the activities for Day 2 are brief footnotes in the curriculum text, they undoubtedly aim to transition between subjects, and are excellent recommendations for integrating material from multiple disciplines. The Southwestern connection, for example, can result in a conversation around the dinner table at home, or lead to experiential learning: Cooking Southwestern recipes discussed in class with family or in the classroom at a later date (depending on the necessities of the recipe and the resources of the school).

The geography connection, however, is perhaps more pertinent to classroom learning, as
it directly correlates with two crosscutting concepts. First, *Scale, Proportion, and Quantity*, which expects that students in Kindergarten through second grade “use relative scales (e.g., bigger and smaller; hotter and colder; faster and slower) to describe objects” (NGSS, 2013b, p. 7); and second, *Systems and System Models*, which expects that students in these same grades also “understand objects and organisms can be described in terms of their parts; and systems in the natural and designed world have parts that work together” (p. 8). The geography activity recommends that the teacher use a world map to demonstrate the difference between town, country, and world, emphasizing their relationship through differences in size as well as how each fits in relation to one another.

The activity for Day 4 incorporates reading and social studies by using real-life newspaper articles as the reading material. This is an ideal circumstance, as it introduces students to disciplinary literacy at a very early point in their academic career. By providing discipline specific texts, we introduce specialized ways of reading and writing, field-related terminology, and help students to apprehend and apply knowledge across multiple subjects (Shanahan, 2014). Reading and writing is a substantial aspect across all studies, but the structure of these texts vary, so it is important to incorporate this same variety into ELA-focused content lessons.

Days 1 and 5 address the same activity, the problem/solution chart, and explicitly reflect each days’ questions, which asked students when creative ideas can solve a problem or problems. On the first day the students look at three problems—finger stuck in a bottle; three cookies for four people; wheel missing from toy car—and propose creative solutions. On the fifth day the class returns to these problems and solutions, and works together to address which ones were best, using what they’ve learned throughout the week.

Unfortunately, while the problems easily incorporate scientific and mathematical
understanding, many elements of these particular lessons not only ignore but also negate the remaining four principles. This lesson would be more successful if it asked the students to propose their own problems (such as the ones they write about on Day 2), and allowed for collaboration and peer support in developing solutions. The follow-up activity on Day 5 would not only be an excellent formative assessment, but will also showcase student autonomy as they reflect, verbally, on these solutions as they applied them in their own lives.

Now that I have analyzed the *Question of the Day*, *Daily Journal Writing*, and *Daily Social Studies Connections* from each lesson and how to best use these prompts to integrate the five principles, it is time to discuss this exploration as it relates to my thesis question.

**Discussion**

I set forth in this research wondering how, as a future educator, I might be able to foster critical thought through the incorporation of Deweyan principles and the methods of PBL and the Reggio Emilia approach on progettazione—philosophies which I deeply believe in—while still meeting the needs of the Common Core State Standards. I turned to the ELA curriculum that would be placed before me if I were working in PPS, *Reading Street (Oregon)*. In analyzing one week of instructional materials, I have made several recommendations for directions these lessons might be taken in to further enhance experiential learning, incorporate the children’s home lives, integrate multiple disciplines, encourage student autonomy, and relate content to the larger world, but this is not without its limitations.

Beginning with the prompts they are provided with, it is possible for PPS teachers to expand the learning platform, but given the allotted two to two-and-a-half-hour window, it doesn’t seem plausible to expand it in every necessary direction. More significant that this, however, is the fact that this is a prescribed, as in pre-written, curriculum. This stands far apart
from progettazione, which “grows in many directions without an overall ordering principle, challenging the mainstream idea of knowledge acquisition as a form of linear progression” (Rinaldi, 2006, p. 7) and PBL, which “can adapt to the unique characteristics of particular places, and in this way it can help overcome the disjuncture between school and children’s lives that is found in too many classrooms” (Smith, 2002, p. 593). For example, Reading Street (Oregon), which includes lessons for every day, broken down by the minute, across the entire year (or years when taken into account that the same curriculum is used for each new, incoming class over an extended period of time), allows little to no room for growth or adaptation. When lessons do inspire such extensions, they are made at the risk of falling behind schedule or having to omit pieces of the previously provided material.

Additionally, though reading and writing practice is an arguably necessary aspect of any ELA instruction, the reading and writing tasks as they are delineated in this curriculum have no innate purposes other than reading for the sake of reading and writing for the sake of writing. Conversely, PBL also demands extensive reading and writing, but for the larger purpose of attaining project goals. Schultz (2008) offers a prime example of what this might look like, as his students “document[ed] problems in the school with photographs and expository texts about its shortcomings…Quickly realizing the drafts needed to be transformed into persuasive statements, the students and [Schultz] compiled their individual work to create a powerful letter they sent to the school board, city officials, newspaper reporters, and concerned citizens” (p. 6-7). For these students, knowing that the reader had the potential to make a difference in their lives beyond a grade on their report card, the letter was of grave importance, and every effort was made to make it as strong as possible.

Much like Dewey’s struggle with the desks, my own struggle is with the demand on the
teachers to listen to the curriculum placed before them rather than work with the students to develop something novel and relevant to their immediate time. That being said, I have made my own efforts to work while listening, taking copious notes as to how this curriculum might be strengthened, with the intention that these notes will someday inspire a new structure, one that satisfies the needs of the both state and the individual learner and teacher.

Conclusion

I have found it an immense challenge to formulate an opinion with regard to the Common Core State Standards and their ability to offer critical thinking skills in a democratic environment. Looking at the benchmarks set before each grade alone, I see no flaw in wanting students to attain such abilities, and The Common Core Initiative has been very clear in expressing that the standards are to be viewed as a framework, and are not a full curricular body (Russell, 2012).

However, standardizing expectations leads to standardizing ways of meeting them, and this seems a grave error. It is my belief that there is much room for improvement in the Common Core, especially with regard to implementation. The standards should not be so narrow that there is only one way to teach them, but also not so broad that educators feel they must seek out pre-packaged lessons specifically aligned so their students can pass the associated tests. I came to these conclusions through my own analysis of the curriculum against the five principles set forth and inspired by Dewey’s thinking.

Looking back on this process, I feel better prepared for entering my own classroom, now that I am familiar with the curriculum in an analytical context, rather than having to learn it as I teach it. I intend to continue reflecting on my formulated principles, incorporating them whenever possible, and adjusting their hierarchy in relation to the needs of my students over
time. More than anything, I must keep an open mind, because without one I will not be able to grow and adapt. Flexibility is at the core of my argument, which was one of the greatest difficulties in compiling this work, because inherent in a recommendation is an outline of steps to take or follow.

Moving forward, the next natural course of action to what I propose here would be an observational case study of the teaching of this curriculum inside of living classrooms, comparing one utilizing and one not utilizing my proposed principles. This would address not only the limits of the raw curriculum, but also the feasibility of my approach, resulting in yet further recommendations and analyses.
References


Shanahan, C., & Shanahan, T. (2014). Does disciplinary literacy have a place in elementary school? The Reading Teacher, 67(8), 636-639.


Appendix A
BIE Tubric

Driving Question TUBRIC 2.0™

- Framing Words
- Person or Entity
- Action or Challenge
- Audience or Purpose

Wild Card

How can...
How do...
Should...
Could...
What...

Wild Card

[Roles] [Occupations]
[Town] [City] [County]
[State] [Nation] [Community] [Organization]

Wild Card

Assembly required.
Instructions not included.
Application open-ended
It’s Project Based Learning

Wild Card

Real-World Problem
For a Public Audience
For a School
For a Classroom
For an Online Audience

Wild Card

Build... Create... Make...
Design... Plan...
Solve...
Write...
Propose... Decide...

Wild Card

I
We

Wild Card

4 3 2 1
### Appendix B

This Week’s Common Core Standards

![Common Core State Standards Table](image-url)
Appendix C
Weekly Plan
Day 1: Problem/Solution Concept Chart
Day 2: Geography and Southwestern Cooking

Day 3: Let's Talk About the Concept
Day 4: Write an Article

**COMPARE AND CONTRAST** Recall that the sisters in *Rosa and Blanca* had different lives but were both very caring.

1. **Ask children to write about how they are the same as and different than a family member or friend.**
2. **Encourage volunteers to read their writing out loud.**

**LEVELED WRITING** Encourage children to write at their own ability level. Some may have limited word choice. Others will need to vary their word choice more. Your best writers will demonstrate varied, precise word choice.

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**You and Me**

My brother Steve and I are similar in some ways. We both like computer games and riding our bikes. We both have brown hair and dark eyes. But we are different in some ways. He plays the piano, but I don’t. He’s taller than I am.

---

**Write an Article**

**NEWSPAPER ARTICLE** Children decide what might be done with leftover vegetables from a school or classroom garden.

1. Read and display examples of newspaper articles.
2. Have partners decide on a plan they have for leftover vegetables.
3. Have them write an article for the school newspaper explaining their plan. Tell them to include a good headline.

**Second Grade Ideas for Garden Leftovers**

There are many people who need food in our town. We should give our leftover vegetables to hungry people.

---

**You’ve Got Mail**

**WRITE A LETTER** Individuals type letters to the person they described in the Writing Center.

1. Have children turn the computer on and open a word processing program.
2. Children then type a short letter to the person they described in the Writing Center. If children have not completed that activity, then they can write to a close friend or family member.
3. In their letters, children should tell the recipient what the two of them have in common.
4. Children then print out their letters.
**QUESTION OF THE WEEK**
Recall this week’s question.

* When can creative ideas solve problems?

Display Graphic Organizer 26 or the chart you drew. Ask children for other solutions. Suggest that they try to imagine what the characters that they read about might try. Then have them choose the best solution for each problem.

<table>
<thead>
<tr>
<th>Finger Stuck in a Bottle</th>
<th>Three Cookies for Four People</th>
<th>Wheel Missing from Toy Car</th>
</tr>
</thead>
<tbody>
<tr>
<td>put on hand lotion</td>
<td>divide each cookie into four parts</td>
<td>use a bottle cap search for the wheel</td>
</tr>
<tr>
<td>hold hand in air butter</td>
<td>take turns taking bites</td>
<td>use wheel from another car</td>
</tr>
<tr>
<td></td>
<td>ask if someone doesn’t want one</td>
<td>cut a wheel from cardboard</td>
</tr>
</tbody>
</table>

**Graphic Organizer 26**

**CONNECT** Use questions such as these to prompt a discussion.

* A generous person would share food with a hungry person even if food were not abundant. How could you assist a hungry person?
* Why do you think some people are able to succeed in a bad situation, while other people cannot? What makes the difference?

**ELL**

**Build Background** Use ELL Poster 15 to support the Preview activity.

**PREVIEW** Tell children that next week they will read about a man who thought of new ways to help others.

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Day 5: Revisit the Problem/Solution Concept Chart