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IDEAS: A Qualitative Inquiry into Project-Based Learning

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Abstract

As waves of the Global Educational Reform Movement, what Sahlberg (2015) identifies as GERM, still ripple around the world pushing for competition, standardization, the focus on the core subjects, and test-based accountability some schools like IDEAS choose what Hargreaves and Shirley (2012) call The Forth Way towards inspiration and innovation with their project-based learning pedagogy. IDEAS is a small public high school in Sheboygan, Wisconsin and a member of Ted Sizer's Coalition of Essential Schools (CES). Our qualitative inquiry explores the implications of project-based learning on IDEAS' students, teachers, academic program and school community. Data came from direct observation, interviews, curriculum documents, and teaching and learning artifacts. Our research informs IDEAS about the impact of their project-based learning pedagogy and validates its significance as part of their curricular program. It demonstrates that democratic principles are at work in some US schools, despite so many instances to the contrary. In the age of GERM this single-case study provides research-based evidence that alternative pedagogical methods and curriculum programs are potentially viable alternatives to many of the curriculum practices commonly found in today's schools.

Keywords

Coalition of Essential Schools, Project-Based Learning, Qualitative Research, Pedagogical Reform

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IDEAS: A Qualitative Inquiry into Project-Based Learning

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As waves of the Global Educational Reform Movement, what Sahlberg (2015) identifies as GERM, still ripple around the world pushing for competition, standardization, the focus on the core subjects, and test-based accountability some schools like IDEAS choose what Hargreaves and Shirley (2012) call The Forth Way towards inspiration and innovation with their project-based learning pedagogy. IDEAS is a small public high school in Sheboygan, Wisconsin and a member of Ted Sizer's Coalition of Essential Schools (CES). Our qualitative inquiry explores the implications of project-based learning on IDEAS' students, teachers, academic program and school community. Data came from direct observation, interviews, curriculum documents, and teaching and learning artifacts. Our research informs IDEAS about the impact of their project-based learning pedagogy and validates its significance as part of their curricular program. It demonstrates that democratic principles are at work in some US schools, despite so many instances to the contrary. In the age of GERM this single-case study provides research-based evidence that alternative pedagogical methods and curriculum programs are potentially viable alternatives to many of the curriculum practices commonly found in today's schools. Keywords Coalition of Essential Schools, Project-Based Learning, Qualitative Research, Pedagogical Reform

From its inception, the United States required a system of public education that would form its citizens into democratic sovereigns. Though not all were imagined to be destined to contribute to the ruling body (women, enslaved Africans, native Americans), the idea was that the new country would not rely on a generational aristocracy for law making and governing. And still today, political scientists and scholars observe that democracy, as an ideal and a practice, has to be purposefully reproduced, though always under critical revision. Alluding to John Dewey's microcosm (1916) thesis, Ted Sizer wrote that schools, and particularly high schools, are "one of this nation's most important social mechanisms, which, at their best, are models of democracy as well as providers of the intellectual and moral equipment for young people to survive and prosper in our culture" (Sizer, 2013, p. xix).

Jim is a former high school and middle school teacher and has been teaching in the Department of Educational Studies at Western Illinois University's Macomb/main campus of since 2003. His research, scholarship and practice include critical pedagogy in teaching and learning environments, experiential education, educational ethics, multicultural education, transformative educational leadership and P-12 educational reform. In 2008, Jim encouraged Andrea to apply to a position in his department, at the regional campus in Moline, IL. They have been co-researchers, co-author's and friends, ever since. Andrea is also primarily rooted in the social foundations of education field. One of her earliest interests was democratic classrooms and she maintains a democratic-dialogic classroom pedagogy. Jim's CES affiliation and interests guided his sabbatical research in 2012 that included an introduction to IDEAS Academy, a CES affiliate. Andrea's particular interest is in school-based yoga and mindfulness. The movement component of the students' projects attracted her to the IDEAS Academy. Both of us teach social and philosophical foundations of education courses to undergraduate teacher education students. Andrea teaches social foundations courses and

qualitative research to their department's MEd students, while Jim teaches the EdD students.

Sizer's words resonate with us as we reflect on America's current P-12 educational landscape, with its malaise of test-based policy mandates that often run counter to what many educators know are good educational practices (Blankstein & Noguera, 2015; Gorski & Zenkov, 2014; Ravitch, 2013). Sahlberg (2015) identifies these damaging policies as the Global Educational Reform Movement, or GERM, pushing education towards competition, standardization, the focus on the core subjects, and test-based accountability (pp. 144-149). Similar to Hargreaves and Shirley (2012) or Darling-Hammond and Rothman (2015) we believe educators and educational leaders need examples of public schools that are operating against the standards-based education reform and test-based accountability directives.

More than forty years ago, Ted Sizer (1973) outlined three educational aims that every citizen should attain: *power*, *agency* and *joy*. *Power* is identified as the ability to maximize one's "intellectual and physical faculties for personal and corporate ends. [They] should be able to understand, to select, and to act in a purposeful, deliberate manner." *Agency* is recognized as "the personal style, assurance, and self-control that allow [them] to act in both socially acceptable and personally meaningful ways." *Joy* is acknowledged as "the fruit of aesthetic discipline, of faith, and of commitment. The human animal laughs, and wonders, and, ... is capable of love" (Sizer, 1973, pp. 39-40). Echoing Dewey (1916), Sizer explained that our schools for the good of our democracy must facilitate these ends, however he suspected that in many schools nationwide there were forces and structures that prohibited these ends from developing.

In the late 1970s, sponsored by the National Association of Secondary-School Principals (NASSP) and the Commission on Educational Issues of the National Association of Independent Schools, Sizer began a study of American high schools (Sizer, 1984, p. 5). From his study, Sizer empirically found American high schools failing to meet the ends he identified in 1973. The first full report was published in 1984 as *Horace's Compromise*. Sizer's study and writing project would span more than fifteen years and additionally produce *Horace's School* (1992) and *Horace's Hope* (1996). This educational trilogy features Horace Smith, a fictitious high school teacher and educational reformer. Horace Smith is foundationally Deweyian in arguing that the curricula and pedagogical programs and teacher-student relationships in high schools need cannot flourish within the confines of a 19th century-style, scientifically managed, bureaucracy that public schooling had become (and remains). The publishing of *Horace's Compromise* in 1984 coincided with the beginning of a more-than thirty-year national school reform effort led by Sizer and the Coalition of Essential Schools (CES).

Anderson and Shirley (1995) explain that in addition to strong school leadership, the "endorsement of, commitment to, and proper implementation of nine principles" are foundational to the CES' success (p. 406). These principles have evolved and been modified in the past thirty years to meet the Coalition's ideals to include a tenth principle. Presently the ten principles are:

- Learning to use one's mind well.
- Less is more, depth over coverage.
- Goals apply to all students.
- Personalization.
- Student-as-worker, teacher-as-coach.
- Demonstration of mastery.
- A tone of decency and trust.
- Commitment to the entire school.

- Resources dedicated to teaching and learning.
- Democracy and equity (CES, 2016).

These current CES principles interweave *power*, *agency*, and *joy*; the educational ends Sizer identified in 1973.

These educational ends, along with CES common principles rarely foster great dissonance with the pre-service and in-service educators we as teachers and researchers work with. For more-than thirty years now, CES has existed as an educational reform network and includes hundreds of public schools that are diverse in size, population, and programmatic emphasis. Coalition members share common educational philosophies, guiding principles and aims for public schooling and annually meet at their Fall Forum. At this internationally attended conference, Coalition members and educational practitioners share their practices, successes and struggles in providing equitable democratic education to their students and school communities. Today, more than one thousand schools have been changed by CES principles and the Coalition remains a national leader in public education transformation and reform. CES strives to create and sustain a network of personalized, equitable, and intellectually challenging schools (CES, 2016; Sizer, 1996). In the following sections we provide the purpose of our inquiry, contextual background of the school we visited and the project based learning pedagogy they incorporated, an overview of our methodology, and the discussion of our findings and results.

Purpose

All research is done for the benefit of the researcher, with some specific purpose and with some investment of hope for the results or outcomes. In this case, our hope was that the results of this inquiry will contribute to our understanding of the experience of project-based learning for IDEAS' students, teachers, and parents. Taking a longer view of the project, we wished to be able to evaluate the extent that project-based learning at the IDEAS supports CES common principles. This is a purpose held in common with the IDEAS staff and other CES - affiliated school and community partners. To a small degree, we realized this purpose in recent publications (Hyde & LaPrad, 2015; LaPrad, 2015). Personally, we hoped that this work would inform our teaching practices as we explored a partnership approach to basic qualitative inquiry and program evaluation. It was very satisfying to have shared this work in successive stages with graduate students in Andrea's qualitative research courses. Finally, we hoped that this single-case study could provide research-based evidence that democratically-minded pedagogical methods and curriculum programs are thriving alternatives to many of the test-based curriculum practices commonly found in today's schools. We are advocates for democratic education in general, and project based learning in particular, and favor its proliferating throughout public schools.

Background

IDEAS Academy

Innovation through Design, Engineering, Arts, and Sciences (IDEAS) Academy, a small public school in the Sheboygan Area School District in Sheboygan, Wisconsin, is a member of the Coalition of Essential Schools. IDEAS is designed as an alternative response to state mandates that interpret compliance to the Federal Law No Child Left Behind (NCLB) as dictating a narrowed and standardized curriculum and prescriptive teaching methods. Sheboygan is a town located almost midway between Green Bay and Milwaukee on the

shores of Lake Michigan with a population close to 50,000 people. During 2012-3, the Sheboygan Area School District had 3,122 high school students attending five high schools. Two large schools housed more than 2,600 students while approximately 500 students attend three alternative schools. During 2012-3, 138 students attended IDEAS. Table 1 below provides school and district demographics. Academically, the district's ACT average of 21.6 is slightly below the state average of 22.0. As a school, IDEAS has met federally mandated Annual Yearly Progress (AYP) for the past three years, while at the same time embracing project-based learning.

Table 1

IDEAS & Sheboygan Area School District Student Ethnic/Racial Backgrounds & SES

	Enrolled Students	%American Indian	%Asian	%Black	%Hispanic /Latino/a	%Pacific Isle	%White	%Two or More	%EDS
IDEAS	138	0.0	6.5	9.7	12.9	0.0	71.0	0.0	48.8
District	3122	0.5	16.2	3.7	11.9	0.1	67.0	0.6	41.7

Table 1 Demographic data

As a Coalition school, shared principles guide academic and school wide programming. Four of CES's common principles (Learning to use one's mind well; Less is more, depth over coverage; Personalization; and Demonstration of mastery) appear to be directly supported by project-based learning pedagogy, which is a part of IDEAS curriculum program. In establishing their curriculum program designed around project-based learning, IDEAS faculty members have received professional development and attended summer institutes with Harvard Graduate School of Education's *Project Zero*. An educational research group whose mission is to "enhance high-level thinking and learning across disciplines and cultures" in many context to include schools (Project Zero, 2013). Our first visit to IDEAS took place in May of 2012, when we were invited to serve as project exhibition judges. As a result of our experience in this role, we decided that we wanted to know much more about the way IDEAS used project-based learning.

Project Based Learning

Blumenfeld et al. (1991) explains that "[p]roject-based learning is a comprehensive approach to classroom teaching and learning that is designed to engage students in investigation of authentic problems" (p. 369). IDEAS' curriculum program embraces such a project-based learning pedagogy. Their curriculum documents state:

In preparation for a world that increasingly values creative and innovative thinking, students must have the ability to synthesize and to communicate effectively. These key skills are developed and mastered in student projects and presentations. Our student presentation process includes time for guided reflection and time to learn how to critique. (IDEAS PoS, 2013, p. 5)

At IDEAS, project-based learning is facilitated with Project-Block (PBlock), a daily, hour long, structured time period that assists students in choosing, researching, developing, designing and continuously reflecting on their projects, and which allows time for supervised preparation for the exhibition of their projects. Twelve to fifteen students are intentionally,

heterogeneously grouped to evenly distribute project experience levels among the assigned PBlock teachers. Projects may be individual or small groups of two to three students when the interest, scope, and division of labor allow for collaborative efforts. All projects require the incorporation of an art form, which might include the fine arts like sculpture, painting or costume design; audio-visual-technological arts such as architectural design, web media, original films or sound scores; or dramatic or movement-oriented art forms such as choreographed dances or oratory performance. IDEAS' *Program of Study* states:

The arts are not merely for entertainment or self-expression, but are rigorous disciplines which require their own knowledge, philosophies, tools, skills and techniques. We believe that our integrated arts approach facilitates simultaneous thinking in critical and creative ways, creating a powerful platform for innovation. (IDEAS PoS, p. 9)

The choice of an expressive art form for their exhibition of learning is an important decision and part within the project itself along with other written project artifacts.

In the conduct of the investigation into the project, students write an exploratory "bridge" paper, a twist on the traditional a research/term paper. This paper is formatted to assist student in completing their projects, requiring them to revisit the project proposal and account for all the research and work they have finished and what must be accomplished for the project's completion. The project culminates in a public exhibition of learning, where students explain their project and display, show or perform their attendant art-pieces as audience members provide feedback and ask questions. Finally, students write a reflection paper, which addresses the entire process, especially new learning and short-comings.

In PBlock, at the beginning of each semester, students begin a brainstorming phase where ideas and topics are work-shopped with the assistance of "thinking routines." These ideas and topics are germinated as students construct driving questions around them, often from dialogue between classmates and teachers. For example, teachers might follow the *Question Starts: A routine for creating thought-provoking questions* (see *Figure 1.*) where students are asked to first brainstorm at least twelve questions about the topic, concept, or object.

1. Brainstorm a list of at least 12 questions about the topic, concept or object. Use these question-starts to help you think of interesting questions:
 - Why...?*
 - How would it be different if...?*
 - What are the reasons...?*
 - Suppose that...?*
 - What if...?*
 - What if we knew...?*
 - What is the purpose of...?*
 - What would change if...?*
2. Review the brainstormed list and star the questions that seem most interesting. Then, select one or more of the starred questions to discuss for a few moments.
3. Reflect: What new ideas do you have about the topic, concept or object that you didn't have before?

Figure 1. Question Starts: Creating Thought-Provoking Questions. This figure illustrates a thinking routine used in Project-Block (*Visible Thinking Resource Book*, 2009, p. 22).

Once the students have their list of questions they are prompted to review and place a star by the questions that seem most interesting. Following this review they are asked to select one or more of the starred questions to talk about for a few moments. To complete this routine, students are prompted to reflect on the new ideas they have about the topic, concept, or object that they did not have before. Within the brainstorming phase, students are also developing their plans for the art form they will use in their exhibition of learning. The brainstorming phase ends with the presentation of student project proposals.

Following the brainstorming phase, the project process moves into a researching component where students gather as much information as they can on their topic. Throughout PBlock's phases, weekly journaling, facilitated "talk abouts" or "check'ins," and studio time occur. Journaling is used to assist and guide students in setting weekly goals and assessing their level of accomplishment. "Talk abouts" are weekly times for students to report on their progress to receive feedback from their peers and teacher. Studio time is where students refine and research their works in progress. Following the researching phase, students move into the construction phase of their art form to share their ideas about what they have learned. During this time period, weekly journaling, "talk abouts," and studio time continue to occur while students are constructing their bridge papers.

Exhibitions of learning are where students present what they have learned in a creative way. Exhibitions occur at the end of each semester and IDEAS schedules two full days, typically on Tuesday and Thursday during the school week for the presentations that take place at a local art center. Exhibitions are open to the public and often attended by family members, relatives, friends and community members. Students are required to attend each other's exhibitions and actively participate in the question and answer period that is part of the exhibition itself. Typically an exhibition is twenty minutes in length and will involve at least one art form in the presentation. Each exhibition is evaluated by an assigned teacher with a multipage evaluation rubric that assesses the quality of the content of presentation, art form and student's delivery and knowledge of the project itself.

Methodology

This is a qualitative case study inquiry, a specific interpretation of generic or basic qualitative research (Lichtman, 2009). This qualitative case study did not have research questions from the onset, nor is it meant to be replicable. Perhaps, it will generate ideas for inquiry around similar schools. As is typical of inquiry informed by the spirit of grounded theory (Glaser & Strauss, 1967; minus conformity to Glaser's original coding paradigm), we made no philosophical assumptions beyond believing that participants would be the best, most credible sources of their own experiences; we stayed curious about what might be happening as IDEAS engaged in project-based learning. Conforming to the axiology and ethical responsibility of non-positivist, qualitative researchers (Creswell, 1994; Rabinow & Sullivan, 1979), we declare our bias as favoring the proliferation of Coalition schools and position ourselves as advocates for project-based learning. The students, teachers and parents of IDEAS are primary stakeholders in the school's educational programs. Our assumption was that they would provide valuable data about the experiences of learning about, working through and presenting the projects that are at the core of the educational philosophy of this school.

Data Collection

Data came from direct observation of project based classes and project exhibition presentations, interviews with students and teachers, curriculum guidelines other public

documents (handbooks, code of ethics, mission statement), teachers' lessons, and students' projects. Empirical data (interview transcripts) were gathered using an open-ended interview protocol to engage with a snowballed sample of teacher-participants and a purposeful sample of student-participants, including students who were new to project work (e.g., freshman), in the midst of project work (e.g., sophomores and juniors), and at or post-completion of project work (e.g., seniors). We were interested in talking to a purposeful sample of students to collect a variety of experiences and a more complete understanding of the entire project process.

Anonymity

Sometimes, when people are doing things that they feel are exciting, when they are proud of their success, they want people to know about it. This presents a problem for university-affiliated researchers who have been invited to study a particular context and speak to unique individuals while at the same time being required to conform to the requirements of their internal review boards (IRB).

Our university's internal review board (like all others that we know of), required us to assign pseudonyms to all interview participants and to use only pseudonyms on transcripts and in our communications with each other during analysis. We were compelled to agree that no identifiers would be used in any presentation of this study. We further agreed that no individual's interview manuscript will be (nor have they been) viewed or heard by anyone other than ourselves and to destroy (delete from a master spreadsheet) all identifiers after the completion of our data collection. However, we think it important to disclose that *the participants in this study fully expect to have the name of their school printed clearly in the publications that we create as a result of our time spent with them.*

To be clear, we honor our responsibility toward confidentiality of all data. That is, we understand and value the blanket permission to speak candidly that is afforded to participants by knowing that the content of their interviews will be held separate from their particular identifiers. And we see the advantages to authenticity in protecting the identities of individual participants in connection with any specific bit of interview transcript or moment of observation. Yet, we feel strongly that the assumed "rightness," among IRB criteria, of the de-identification of all study sites and participants are a vestige of positivist anthropological field work, where the participants are examples of general objects of study and not treated as exclusive Others. We will continue to struggle with this requirement while we seek to meet our responsibilities for presenting the story of our uniquely situated, fully human participants. As more university researchers explicitly dissolve the lines between researcher and researched, there will have to be a reckoning between IRBs and qualitative investigators. For others who have complicated this issue, see Boylorn, 2008; Lincoln & Tierney, 2004; Thomson et al., 2005.

Interviews

We did not contact informants directly, other than the Director of IDEAS, who agreed to be our primary gatekeeper. He provided us with access to the school and put us in touch with teachers who were willing to serve as interview informants and who would invite us to observe in their classrooms. We also asked the Director to distribute information about the study to parents who might like to participate in interviews. Staff and parents who wished to participate were invited to contact us by the Director. All participants were asked to sign a consent form at the time of first interview; Students were provided with a consent form and a parental permission form. The Director secured signatures for parental permission forms for

each student whom the teachers had recommended as participants and who had expressed an interest in being interviewed. All participants received a copy of their consent/parental permission forms. Interviews took place in various classroom and hallway spaces in the school building. We sought spaces in which the co-researcher(s) and the interview participants could have a private conversation. Each interview lasted between 30-60 minutes, depending on how much each participant had to say, and no more than 60 minutes in consideration of the school schedule. We had planned to formally interview each participant once and contact each for a follow up conversation only once for the duration of this study. At the time of writing, we have not interviewed any parents and have yet to complete follow up conversations with some of our teacher and student participants. As the study progresses, it may be necessary, due to schedule conflicts and our own travel constraints, and in the interest of capturing all data within a relevant time frame, to hold parent interviews as a focus group(s) when we next return to the site.

Field Working in Partnership

One of the most enjoyable and richest components of this study is the dialogic nature of our research partnership. In addition to choosing to work exclusively in qualitative inquiry, we chose similar preparation programs that led to the same terminal degree at peer institutions; we both adopted a similar theoretical perspective, much informed by democratic philosophy and critical social theory; and we teach the same courses at our university. From designing the study to asking questions, and from collecting data to devising a coding scheme, we had each other to rely on. Having a peer colleague as a co-researcher makes reflexivity - a critical self examination of one's biases, theoretical perspective and positionality with regard to the research context and topic - which is one of the requirements of good qualitative research is central and inevitable. In our research partnership, we offered repeated and regular challenges to each others' interpretations and questioning of data that we both have access to. This also placed a check on authenticity in our respective representations of the participants' voices and in our portrayal of the study site. Our agreements provided validation of our individually mined themes. However, it is in the tension over our disagreements that we learned most about ourselves as "instruments" of research.

In 2013, we made four (4) separate, two-day site visits to IDEAS, from February through May. On three of those occasions, we traveled together and split the work of observing and interviewing between us, though we sometimes served as observer-recorders for each others' interviews when our schedules permitted.

In addition to observing project-based classroom activities and generating field notes, we used this time for collecting interviews and conducting follow-up conversations, while engaging in continual analysis and writing. We visited classes, hallways and lunchrooms where other students were present to conduct unstructured site observations. We also attended several school functions where students, teachers and parents were present and during which we spoke informally to them.

Before each visit, we met to discuss our thoughts about the school, the participants, the community, CES and project-based learning. We also planned for how best to use our time and set a goal for what we wished to accomplish. On the five hour ride to the school, we discussed philosophical foundations for democratic education and the limits of current educational policy; on the rides home, we debriefed on our observations and interviews, declared our challenges, assumptions, frustration and joys and started planning for the next visit. We continued this first round of analysis and writing until November of 2013.

Data Analysis

All interviews were recorded and transcribed. The transcripts were read to identify significant themes that emerged from memo-writing and dialogue between co-investigators and with interview participants during follow-up conversations. This is a form of recursive data collection based on the work of Emerson, Fretz and Shaw (1995) and Coffey and Atkinson (1996). We included our interview participants' responses to our preliminary interpretations as a way of declaring our focus and as a means of inviting clarification of the interview experience as a co-creation and as an intermediary interpretation of the research data. Below, we represent our findings as brief, speculative essays on themes that we sought in our analysis (Schubert, 1991). Here is where readers may sometime find a separate results and discussion section. At time we use the results of other research studies to discuss and conceptualize our results. The speculative essay "blends qualities of a personal essay and theoretical writing to show the process of an author thinking on a subject" and "displays the reflective and recursive nature of writing" (Logsdon, 2000, pp. 14-16). As well, essay is geared toward a more public view and deliberately more accessible to a non scholarly audience.

Like social scientists sometimes do, we queried the text for themes that were of interest to our particular discipline, in this case, evidence of the CES principles (Ryan & Bernard, 2000). Our essays represent an initial attempt to understand the CES principles in action and the result of that attempt ("Essay," 1989). The essay topics were chosen to highlight the four CES principles that our data exemplified: Learning to use one's mind well; Less is more, depth over coverage; Personalization; and Mastery. We start with an overview section that uses observation and interview data to clarify the central phenomenon under study: project-based learning.

Discussion

Four of CES's common principles: *Learning to use one's mind well*; *Less is more, depth over coverage*; *Personalization*; and *Demonstration of mastery* are directly supported by the project-based learning pedagogy and practice we find at IDEAS. It is important to understand that when Sizer drafted these principles in 1983 his intention was not to provide specific guidelines, but to provoke thought and imagination for what could be possible. In the sections that follow, we present a "thick description" (Lincoln & Guba, 1985, p. 316) of the evidence we witnessed that may be transferable points of departure for curriculum reformers seeking validity for their pedagogical practices. The following is a presentation of our preliminary findings, a first pass through the data with the lens of the four CES principles, informed by our understanding of, mostly Deweyan, democratic educational theory. In our discussion we believe that it is important to theoretically situate and support each of these "essays" with the description of the associated CES principle.

Learning to Use One's Mind Well

Learning to use one's mind well was for Sizer perhaps the foremost *ends* of public schooling in our democracy. Most citizens would agree that we need critical and creative thinkers in our participatory democracy. We must ask ourselves, however how can we achieve this aim? The CES principle states:

The school should focus on helping young people learn to use their minds well. Schools should not be "comprehensive" if such a claim is made at the

expense of the school's central intellectual purpose. (CES, 2016; Sizer, 1996, p. 154)

As an educational institution, one way IDEAS puts into practice this principle is with its project-based learning program. Multiple themes emerged from analysis of interview transcripts, which support elements of this principle, including: *thinking routines*, *taking and representing multiple perspectives*, and *unexpected learning*.

IDEAS' teachers and students are accustomed to utilizing thinking routines and protocols that essentially become habits of mind; part of the intellectual culture of the school community. Thinking routine posters from Harvard's *Project Zero* are placed in every classroom and are visible on the school's hallway walls. These pedagogical tools are foundational to project-based learning. *Nick Inversol*, one of IDEAS' teachers explained that at the beginning of each semester, in PBlock, teachers take their students through a brainstorming phase. He explains, "It has specific structure that kind of alters slightly each time based on what we've seen in the previous semester." He points to the wall at a particular thinking routine poster, "Yeah there we go. Generate-Sort-Connect-Elaborate [see *Figure 2*], they'll start talking about the things they are interested in. They'll have a sheet of paper that they put that in the middle and they'll build off of that."

Select a topic, concept, issue for which you want to map your understanding.

- **Generate** a list of ideas and initial thoughts that come to mind when you think about this particular topic/issue.
- **Sort** your ideas according to how central or tangential they are. Place central ideas near the center and more tangential ideas toward the outside of the page.
- **Connect** your ideas by drawing connecting lines between ideas that have something in common. Explain and write in a short sentence how the ideas are connected.
- **Elaborate** on any of the ideas/thoughts you have written so far by adding new ideas that expand, extend, or add to your initial ideas.

Continue generating, connecting, and elaborating new ideas until you feel you have a good representation of your understanding.

Figure 2. Generate, Sort, Connect, and Elaborate Concept Map. This figure illustrates the thinking routine *Nick Inversol* used in Project-Block (*Visible Thinking Resource Book*, 2009, p. 51).

These pedagogical tools become the language used in project-based learning as students and teachers explore the depth of their projects in as many different directions as they can with protocols such as See, Think, Wonder or Compass Points (see *Figures 3* and *4*) that are posted on IDEAS' classroom walls. These processes become visible as students answer the driving questions around their project in learning to use their minds well.

- What do you **see**?
- What do you **think** about that?
- What does it make you **wonder**?

Figure 3. See, Think, Wonder

1. **E = Excited**
What excites you about this idea or proposition?
What's the upside?
2. **W = Worrisome**
What do you find worrisome about this idea or proposition? What's the downside?
3. **N = Need to Know**
What else do you need to know or find out about this idea or proposition? What additional information would help you to evaluate things?
4. **S = Stance or Suggestion for Moving Forward**
What is your current stance or opinion on the idea or proposition? How might you move forward in your evaluation of this idea or proposition?

Figure 4. Compass Points. These figures illustrate thinking routines used in Project-Block (Ritchhart, Church, & Morrison, 2011, pp. 55; 93).

Another dimension of *using one's mind well* exists within project-based learning, as students often must take and represent multiple perspectives. These perspectives are often generated from one of their project's driving questions. For example *Laura* a junior and *Evan* a senior teamed up for their project that involved a driving question: "How can we alter the view of Americans about eating bugs?" They arrived at this question from *Laura's* exploration into the animal kingdom one day when *Evan* was absent. *Laura* explains "I was looking online and I came across a website that described how people from different cultures ate different kinds of insects and what they taste like. And that really interested me. I really

wanted to do something with this and I was driven to do this, so I persuaded *Evan* and now we are creating our own recipes.” One of their assumptions was that Americans looked down upon the eating of insects. Holding the opinion, “Its beneath us.” After conducting preliminary research, they recognized that eating bugs or insects was culturally bound, noting that in many Asian cultures insects were a source of protein in people’s diets. *Laura* and *Evan* explained that part of their project involved educating their audience about other people’s perspectives, while they desired that their audience recognize their own biases. In a different project titled, “How democratic should we be?” *Natalie* a junior attempted to answer this question by providing her audience with three different perspectives on political systems: anarchy, communism and democracy. *Natalie* said the idea for this project began with her and a friend reading *Animal Farm* last summer, “and it just really like interested me because I know a lot of people base their knowledge about communism off of that one book. They’ll say, oh yeah I read *Animal*. So I thought, well since [communism] clearly didn’t work, is there a way that it could work?” *Natalie* explained that she recognizes that many of her classmates have limited perspectives on anarchy and communism; so deepening their understanding of these two alternatives may assist them with better understanding democracy.

In these two examples, taking and representing multiple perspectives are central to a project’s driving questions and facilitate the students learning to use their minds well. We see a strong connection to forming a healthy democracy here, one that requires multiple perspectives in order that it may not stagnate and degenerate by blind uniformity. According to Dewey, a democratic society has two requirements: (1) it is composed of groups with many and varied interests that are consciously communicated; and (2) there are varied and free points of contact with other groups; open relationships, where what is healthy are those relationships that foster more future interactions, not fewer (Dewey, 1916, pp. 20-22; pp. 81-84). We immediately thought of Dewey’s defense of diversity thesis in the underlying and developing rationale for these project examples.

The project-based learning process lends itself to unexpected learning or tangential learning that often occurs on the periphery. When using driving questions and thinking routines *Lorraine Scott*, one of IDEAS’ teachers, explained that quite often the questions that are raised are not answerable in any one way; typically there is not just one *right* answer. She further explains that she really sees this within the project process itself. Students must come up with a creative medium or art form to present their findings, the answers to their questions, in the form of an exhibition. *Lorraine* explains that in creating something that does not exist, the students are constructing something very different from looking for the “right” answer, which occurs in traditional classrooms. Also it is important to understand that while students formulate a response to their driving questions with their presentation and chosen art form, this is only a partial answer because the answer must include a dialogue with the audience in the exhibition itself. This project-based learning process that involves the construction, exhibition and dialogue around ideas and driving questions is a process with *open ends* where students and teachers refine their questioning and their hypotheses. Thinking routines, perspective taking and unexpected learning are intentional, ingrained and layered through this process where students are *learning to use their minds well*.

Less Is More, Depth over Coverage

Says Egan (2010) “By learning something in depth we come to grasp it from the inside, as it were, rather than the way in which we remain always somehow on the outside of that accumulated breadth of knowledge” (p. 6). Depth in understanding is qualitatively different than breath; this qualitative difference is both internal within the person and external

in the design of the learning process. Internally this qualitative difference leads to what we would consider a more authentic personal ownership of knowledge or understanding. We believe IDEAS embraces this belief as they approach the *Less is more, depth over coverage* principle and push theory into practice. The CES principle states:

The school's goals should be simple: that each student master a limited number of essential skills and areas of knowledge. While these skills and areas will, to varying degrees, reflect the traditional academic disciplines, the program's design should be shaped by the intellectual and imaginative powers and competencies that the students need, rather than by "subjects" as conventionally defined. The aphorism "less is more" should dominate: curricular decisions should be guided by the aim of thorough student mastery and achievement rather than by an effort to merely cover content. (CES, 2016; Sizer, 1996, p. 154)

Project-based learning at IDEAS contains many examples of the *less is more* principle, many of which are noticeable in PBlock. Depth over breadth is practiced throughout the process. Interdisciplinary curriculum connections are fostered as teachers use multiple thinking routines and protocols to help students explore non-intuitive connections between their ideas and the school's academic content, global issues and local community needs. The project's exhibition of learning is an essential component where depth of understanding takes precedence over complete coverage of information allowing students to demonstrate the extent of their explorations of topics. What follows is a brief discussion of two different projects that highlights the principle of *depth over coverage*.

"Deforestation: How it is effecting the environment and the trees" was a collaborative project by two juniors *Bianca* and *Oliver*. Their chosen art form was sculpture and their product was an eight-foot tall metal tree. *Oliver* explained that a lot of tree species are affected by deforestation, especially in the rainforest and they were trying to connect real life stories to their sculpture. "I'm more of an engineer than an artist," explained *Bianca* when she discussed the concept and chosen art form. She would go on to explain that she loves doing research on topics and this one in particular because it's "connected to something in society that we needed to fix." Both *Bianca* and *Oliver* talked about the political nature of deforestation and how global economic greed is endangering species through deforestation. Their sculpture and exhibition of learning were exquisite, both students spoke with confidence as they shared their scientific research regarding this global issue as their eight-foot wire sculpture stood starkly idle off the edge of the exhibition room. The partially baron tree tangled with bits of garbage and draped red ribbons was an eerie reminder of the human hands implicated in deforestation. Following the exhibition, while *Oliver* shared his emotional relief that the presentation was over and his sense of accomplishment, he also discussed the significance of this project, "once I started looking into this project I really got attached to the subject, there was a lot more meaning to me." This great sense of meaning filled the art center as students presented their exhibitions.

While this sense of meaning can be easily assumed after witnessing such a "successful" exhibition as *Bianca* and *Oliver's*, meaning may come in "failure" as well. An example is *Kasson's* dance project, titled "Advertisement for a dance course." *Kasson*, a junior, explained that his advertising was not very successful because no one from the community signed up for his six-week dance class. Acknowledging this failure, he explained that he ended up having to teach a middle school class his dance moves. For the exhibition of learning, he brought his middle school dance students to the stage and skillfully guided them through the performance of two different styles of dance. When the dancing was over and the

discussion and critique of the exhibition began, someone from the audience asked, “What was the driving question?” *Kasson* seemed nervous and lost for words and he fumbled and discussed the difficulty of coordinating the dance lessons. When he was finished, there seemed to be a painful pause or quieting from the audience. Finally, someone else asked a question about the challenges he faced in the project; *Kasson* focused on the dance instruction not the marketing or the advertising. From the audiences’ perspective people could easily question what was learned, the meaning or value of this project. However, while *Kasson* may have stumbled to fully explain his project’s driving question, its existence guided the project. Almost two months prior to the exhibition, *Kasson* shared the project’s driving question “What does the advertising and choreography for a six-week course look like?” *Kasson* identifies himself as a dancer who hopes to make a career with his dancing skills. However, he is unsure of himself, he fears failure, he does not like performing his own ideas, let alone teaching someone to perform his ideas. For his project, while the advertising was a failure, he had successes in designing the choreography, selecting the music, teaching his middle school students the choreography and guiding their performance. The exhibition audience would never understand these successful components of *Kasson*’s project, which were cloaked by its incompleteness. This project may have looked unfinished; it lacked breadth, but not depth. Hopefully, through the thinking routines and post-exhibition reflective process, *Kasson* will continue to learn more about his topic and himself as a student and teacher.

From these two examples readers may see the complexity of *less is more, depth over coverage*, facilitated by both PBlock and the exhibitions of learning that embody the principle. IDEAS’ students explore and construct projects to depths that are unconventional in traditional teaching and learning environments. Projects take on greater meaning and have interdisciplinary outcomes that are more than academic. This is in contrast to curriculum narrowing and shallow demonstration of learning that occurs in many schools to meet the demands of standardized testing.

Personalization

Sizer was clear when he set out to assist in reforming the American high school that educational reforms would need to alter traditional structures and routines to achieve personalization. The principle states:

Teaching and learning should be personalized to the maximum feasible extent. Efforts should be directed toward a goal that no teacher have direct responsibility for more than 80 students in the high school and middle school and no more than 20 in the elementary school. To capitalize on this personalization, decisions about the details of the course of study, the use of students’ and teachers’ time and the choice of teaching materials and specific pedagogies must be unreservedly placed in the hands of the principal and staff. (CES, 2016; Sizer, 1996, p. 154)

Structurally, IDEAS facilitates project-based learning with teachers leading small groups of students in their PBlocks. In addition to the project-design structure and process, small teacher-guided groups operating in academic, arts, and design related classes lead to opportunities for greater personalization, as teachers and students collaboratively work to *own* their learning and take responsibility for it.

In PBlock, the relationships between students and teachers are enhanced. IDEAS teachers know their students well. One of IDEAS’ new teachers *Eric Trooper* explains, “Yeah, I know some of them are [closer to us in relationships]. But I would guess that a lot of

it has to do with the culture here. Because you get these kids who know us better than the kids do at the other high schools.” Knowing students well allows teachers to better personalize their work with students. This personalization comes in many different ways, as teachers know their student’s interests and disinterests and strengths and weaknesses. *Eric Trooper* continues, “To me, that whole personal connect with kids is huge. Getting them to step out of their comfort zone and try things. And push themselves you got to have that level of trust in the classroom.”

This level of trust *Eric Trooper* mentions enhances the collaborative process that must be developed as teachers direct and guide project development in the PBlock. This trust must not only occur between the teachers and their students, but also the students themselves in collaborative and cooperative environments that require peer involvement in discussing, questioning and critiquing projects. Multiple *zones of proximal development* must occur and reoccur as *old-timers* and *new-comers* are constantly evolving in project development (Lave & Wenger, 1991; Vygotsky, 1978). It is understood that freshmen or students who transfer to IDEAS will not know what the project process is really like until they see a project, from inception through exhibition of learning.

Throughout the day, teachers make time to work independently with students to put them in touch with resources that the students may not think of on their own. For example, the staff keeps a collection of past projects to serve as models for ideas of what to do and perhaps what not to do. This is a way to guide students toward originality and personalization in the brainstorming of their topics. Teachers often steer students around, if not away from, topics of consistently high interest among adolescents such as depression/suicide or legalization of marijuana. They also help students make connections with other teachers and experts in their community to support their projects. Freedom of movement around the school for students ensures that these relationships can continue, following the flow of student inspiration and teacher availability. We observed several classes where students flowed in and out of the room during their independent work times, which are a normal part of the agenda on most days.

The personalization of IDEAS’s project-based learning adds to the meaningfulness of the projects themselves. This meaningfulness comes from both the authenticity of the project’s construction and the real possibility of failure that project based learning promotes. Both materials and ideas fall apart at times, as do the collaborative relationships between partners in projects. Two teachers mentioned the same student’s project that fell apart. *Quinton Xavier* explained, “If you came and saw her exhibition of the project you would say maybe she failed the project, but she learned from the process. Her process kept ending in she couldn’t do what she wanted to do.” The teachers knew she wasn’t failing during the process. *Karen Scott* expounded, “She was learning a method just like scientists do: fail, fail, fail.” *Quinton Xavier* further explains:

I think some of the projects that haven’t come out properly have been some of the most engaging projects . . . Because they can stand up and say look I did this, I made this project. I tried it didn’t come together . . . From those failures those students are learning . . . a much more rich learning process.

The possibility of real situated failure has the potential to lead to deeper lasting learning and coax greater growth from the experience. But productive failure is much more likely to happen in a safe environment and within trusting relationships. Such relationships require that participants know one another as individuals. We believe that *personalization* promotes greater, deeper and more authentic learning opportunities not commonly found in traditional educational environments.

Personalization facilitates ownership of failures and successes essential to learning and knowledge development. We recognize that essential to developing this *personalization* is the relationships that emerge between students and teachers and students and their peers. This level of trust develops secure bonds, allowing for risk taking and the possibility of failure, which elevates the potential of learning and growth that occurs at IDEAS.

Demonstration of Mastery

Debates on how to best assess learning have gone on for many years. Sizer recognized these struggles as he forged designs around using more authentic assessments. The CES principle states:

Teaching and learning should be documented and assessed with tools based on student performance of real tasks. Students not yet at appropriate levels of competence should be provided intensive support and resources to assist them quickly to meet those standards. Multiple forms of evidence, ranging from ongoing observation of the learner to completion of specific projects, should be used to better understand the learner's strengths and needs, and to plan for further assistance. Students should have opportunities to exhibit their expertise before family and community. The diploma should be awarded upon a successful final demonstration of mastery for graduation - an "Exhibition." As the diploma is awarded when earned, the school's program proceeds with no strict age grading and with no system of credits earned by "time spent" in class. The emphasis is on the students' demonstration that they can do important things. (CES, 2016; Sizer, 1996, pp. 154-155)

IDEAS intentionally chooses project-based learning as a part of its curriculum program, as both pedagogy and assessment. They facilitate *demonstration of mastery* (project-based assessment) with PBlock and exhibitions of learning every semester. Throughout PBlock, students are engaged in thoughtful reflective practices and teacher guidance, monitoring and formative assessment. During the exhibitions of learning students undergo both peer and teacher evaluation in realistic and meaningful ways, which fosters a learning environment with greater authentic assessment and learning.

Project exhibitions themselves epitomize *demonstration of mastery*, where students stand before their teachers, peers, parents, and community members and share and defend what they have learned in a public domain. Teachers score multiple paged rubrics as they evaluate student projects to include their presentation of learning and the chosen art form. Exhibitions are held at the John Michael Kohler Arts Center in Sheboygan, Wisconsin. This public space itself adds meaning explained *Oliver*, a junior at IDEAS, "The public presentation at the art center in my mind it gives me a sense of dignity."

Dignity and accomplishment are not a singular affair, as IDEAS students grow and improve over time. Students witness their own development from the time of their first project as a new student to their final project as a senior. Mastery becomes a continuous process as students challenge themselves, as they choose a new art form, or a new partner to assist in developing and constructing their ideas and projects. Sometimes the mastery may come in mastering themselves. *Bianca*, an IDEAS junior, explains "I've learned how to work with other people, I was a good follower, yet I've grown to realize I am a dominant leader; I know what I want." She continued discussing that this was a surprise to her. This makes us wonder if this would have happened in a traditional educational environment without project-based learning. The type of collaborative environment that is ever present at IDEAS is one

where the students are teaching each other, they are teaching the younger students, and they are teaching the community. The type of knowledge they are working with and constructing is a public knowledge, a democratic knowledge to benefit themselves, their school, community and the greater society.

However the *mastery* is not located in the projects or the exhibitions of learning themselves but in the process of using one's mind well. IDEAS teacher *Ullie Quick* explains, "When we started with this project thing there always was I suppose the 'refrigerator part'. Ooh nice job, put it on the refrigerator!" This was not what IDEAS was aiming for, *Ullie* continues, "we wanted it to be about the process. What is the creative and thinking process? How do you innovate for something?" She explained that you cannot have innovation without failure and things that don't work and she offers an example.

We had a girl last time who ... tried to make a geodesic dome for a certain purpose. She made three of them. They kept falling apart. She ran out of time. She had to give her presentation at the exhibitions of learning. And she had these poor domes that were all floppy. And she took each one and explained her process. And then her discoveries of why it didn't work.

Ullie continued explaining that this case really demonstrated what the student was learning from the process of working on a "real task," an "important thing."

IDEAS teacher *Quinton Xavier* additionally discusses how important the project learning *process* is when projects fail or do not turn out like the students planned by pointing to the posters on the wall explaining that what is under development in the process is "those habits of mind and habits of professionalism, those soft skills that students have that they talk about [and] that self discipline." IDEAS teachers work closely with their PBlock students to continually bring students back to these habits of mind and collaboration especially when projects are not working or coming together. *Quinton* continues explaining that these habits are:

the end itself. To develop those soft skills and through the process we have another extended period of time after the presentations are done that's just reflection time for the student where they think back and say this went well and what went poorly this is what I need to do next time to fix those issues that I had the previous time.

Quinton explains that this is the heart of the IDEAS curriculum: "were the kids are reflecting and reflecting and reflecting, its weekly in advisory its ... daily in academic classes, so they have that chance to really think about what's going well and what's going poorly and how to change it . . . to sit down and think what do I need to do next."

Demonstration of mastery is inherent in project-based learning, where projects that are both authentic and meaningful lead to mastery of oneself as an actuated learner. The type of learner both Dewey and Sizer would applaud that arises from an academic program that does not trivialize the time and activities they request their students take part in. Mastery is in the process itself acquiring the habits of mind to acknowledge one's successes, mistakes and failures, as well as one's learning.

Results

In this case study, we set out with no specific questions, hoping to understand how the IDEAS school community experienced project-based learning. We also sought the extent that

project-based learning at the IDEAS Academy supported the CES common principles. The results of our research inform IDEAS about how their school community experiences and enacts their specific project-based learning pedagogy, and validates its significance as part of their curricular program. From the limited bounds of this study, we found that four of the Coalition's principles: *Learning to use one's mind well*; *Less is more, depth over coverage*; *Personalization*; and *Demonstration of mastery* are embedded in IDEAS' curriculum program, pedagogical practices and habits of mind. As researchers we looked for and found evidence. The above "essays" could be considered the tip of iceberg for bodies of knowledge and understanding that not only describe what we found, but also reassure IDEAS' teachers and community of what exists behind and within their students' projects. This external or outside confirmation can hopefully add to IDEAS assessment and validation of their own curriculum program and the integration of the guiding CES principles in student learning and outcomes.

We recognize that context specific conditions bind what we witnessed and report on above. Our case study examined just one school community, with whom we have friendly association and positive regard. We observed and listened to just a portion of the members and for less than two school years. The results are, therefore, not generalizable to other contexts, however our methods may be useful for similar inquiry regarding CES-affiliated schools.

With these considerations, we present educators and educational leaders with a counter narrative to the educational policy and practice proliferating during the current standards-based educational reform and test-based accountability movement. This political purpose was simple and straightforward. Our essays argue that democratic principals *are* at work in public schools. We believe that this single-case study of IDEAS, a member of the Coalition of Essential School, with its democratically-minded pedagogical methods and engaging curriculum program provides research-based evidence that there are thriving alternatives to many of the current textbook and test driven curriculum practices commonly found in today's schools.

References

- Anderson, L., & Shirley, R. (1995). High school principals and school reform: Lessons learned from a statewide study of project re: learning. *Educational Administration Quarterly*, 31(3), 405-423.
- Blankstein, A., & Noguera, P. (2015). *Excellence through equity: Five principles of courageous leadership to guide achievement for every student*. Thousand Oaks, CA: Corwin.
- Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational Psychologist*, 26(3), 369-398.
- Boylorn, R. (2008). Participants as co-researchers. In L. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (pp. 600-602). Thousand Oaks, CA: SAGE Publications, Inc. Retrieved from <http://dx.doi.org/10.4135/9781412963909.n310>
- CES. (2016). *The CES common principles*. Coalition of Essential Schools. Retrieved from <http://essentialschools.org/common-principles/>
- Coffey, A., & Atkinson, P. (1996). *Making sense of qualitative data*. Thousand Oaks, CA: Sage.
- Creswell, J. (1994). *Research design: Qualitative and quantitative approaches*. London, UK: Sage.
- Darling-Hammond, L., & Rothman, R. (2015). *Teaching in the flat world: Learning from*

- high-performing systems*. New York, NY: Teachers College Press.
- Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. New York, NY: Macmillan.
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (1995). *Writing ethnographic field notes*. Chicago, IL: University of Chicago Press.
- Essay. (1989). In Oxford English dictionary online (2nd ed.), Retrieved from <http://www.oup.com>
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.
- Gorski, P., & Zenkov, K. (Eds.) (2014). *The big lies of school reform: Finding better solutions for the future of public education*. New York, NY: Routledge.
- Hargreaves, A., & Shirley, D. (2012). *The global fourth way: The quest for educational excellence*. Thousand Oaks, CA: Corwin.
- Hyde, A. & La Prad, J. (2015). Mindfulness, democracy and education. *Democracy and Education*, 23(2), 2. Retrieved from <http://democracyeducationjournal.org/home/vol23/iss2/2/>
- IDEAS Program of Study (PoS). (2012). Sheboygan, WI: School of The Etude Group.
- La Prad, J. (2015). The coalition of essential schools and rural educational reform. *The Rural Educator*, 36(3), 20-33.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation* New York, NY: Cambridge University Press.
- Lichtman, M. (2009). *Qualitative research in education: A user's guide* (2nd ed.). Thousand Oaks, CA: Sage.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications.
- Lincoln, Y., & Tierney, W. (2004). Qualitative research and institutional review boards. *Qualitative Inquiry*, 10(2), 219-234.
- Logsdon, M. B. (2000). *A pedagogy of authority: Speculative essays by an English teacher*. (Unpublished doctoral dissertation). University of Pittsburgh, Pittsburgh.
- Project Zero. (2013). *What is project zero?* Harvard Graduate School of Education. Retrieved from <http://www.pz.harvard.edu/>
- Rabinow, P., & Sullivan, W. (Eds.). (1979). *Interpretive social science: A reader*. Berkeley, CA: University of California Press.
- Ravitch, D. (2013). *Reign of error: The hoax of the privatization movement and the danger to America's public schools*. New York, NY: Knopf.
- Ritchhart, R., Church, M., & Morrison, K. (2011). *Making thinking visible: How to promote engagement, understanding, and independence for all learners*. San Francisco, CA: Jossey-Bass.
- Ryan, G., & Bernard, H. (2000). Data management and analysis methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 769–802). Thousand Oaks, CA: Sage.
- Sahlberg, P. (2015). *Finnish lessons 2.0: What can the world learn from educational change in Finland?* (2nd ed.). New York, NY: Teachers College Press.
- Schubert, W. (1991). Philosophical inquiry: The speculative essay. In E. C. Short (Ed.), *Forms of curriculum inquiry* (pp. 61-76). Albany, NY: State University of New York Press.
- Sizer, T. (1973). *Places for learning, places for joy: Speculations on American school reform*. Cambridge, MA: Harvard University Press.
- Sizer, T. (1983). Essential schools: A first look. *NASSP Bulletin*, 67(465), 33–38.
- Sizer, T. (1984). *Horace's compromise: The dilemma of the American high school*. Boston, MA: Houghton Mifflin Company.

- Sizer, T. (1992). *Horace's school: Redesigning the American high school*. Boston, MA: Houghton Mifflin Company.
- Sizer, T. (1996). *Horace's hope: What works for the American high school*. Boston, MA: Houghton Mifflin Company.
- Sizer, T. (2013). *The new American high school*. New York, NY: Jossey-Bass.
- Thomson, D., Bzdel, L., Golden-Biddle, K., Reay, T., & Estabrooks, C. (2005). Central questions of anonymization: A case study of secondary use of qualitative data. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 6(1). Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/511/1102>
- Visible Thinking Resource Book*. (2009). Boston, MA: President and Fellow of Harvard College.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

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