IDEAS: A Qualitative Inquiry into Project-Based Learning

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About the Authors

- Jim – former middle/HS teacher; experiential education, ed philosophy, democratic ed

- Andrea – sociologist; democratic classrooms, mindfulness in ed; teaches qual research

- Both – Deweyan, Freirean, critical pedagogues; social foundations of education faculty

- **Project origin – Jim's sabbatical research on Coalition of Essential Schools (CES)**

Coalition of Essential Schools

- Established in 1984 by Ted Sizer, author of Horace's Compromise
- An educational reform network w/ hundreds of affiliates, that are diverse in size, population, and programmatic emphasis
- Approx. 1000 schools influenced by CES principles
- Public schools including charters, private, not for profit schools
- Annual Fall Forums – last one, Dec 2016, always meant to be diffused and local
- Theorized (by people like us) as enacting Deweyan and Freirean educational philosophy

Coalition of Essential Schools: 10 Principles

- 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

Study Site: IDEAS Academy

- [I.D.E.A.S. (Innovation through Design, Engineering, Arts, and Sciences) Academy](#)

- A CES School

- The Étude Group of Schools - a set of three tuition-free public charter schools within the Sheboygan Area School District, in Sheboygan, Wisconsin.

- Arts/Performance, Science/Tech, Thinking, Action, Democratic-Oriented, College Prep

- Sheboygan – 50k people; District - 3122 students; IDEAS - 138 (at time of study)

- IDEA: 71% White, 12.9% Latino, 9.7% Black, 6.5% Asian (more diverse than district)

- Students performing slightly below state average but consistently made AYP

Study Purposes

- Contribute to our understanding of the experience of project-based learning for IDEAS' students, teachers, and parents

- Evaluate the extent that **project-based learning** at the IDEAS Academy supports CES common principles

- Inform our teaching practices as we explored a partnership approach to basic qualitative inquiry and program evaluation

- 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

IDEAS: Project-Based Learning (PBL)

- "…a comprehensive approach to classroom teaching and learning that is designed to engage students in investigation of authentic problems"

- Projects in each year require

  - Exploratory Paper

  - Exhibition of Learning

  - Reflection Paper

Teaching strategies follow thinking routines developed by Harvard Graduate School of Education's *Project Zero*

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?

- What do you **see**?

- What do you **think** about that?

- What does it make you **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?

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.

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*(3/4), 369.

Project Block (PBLOCK)

- 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.

- 12-15 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

- 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.

- Components: Brainstorming, journaling, "talk abouts", "check-ins", studio time

Methodology

- Qualitative case study influenced by basic QR and grounded theory (minus conformity to Glasser's original coding paradigm)

- No research questions from the onset; we stayed curious about what might be happening as IDEAS engaged in project-based learning

- Constructivist epistemology - no philosophical assumptions beyond believing that participants would be the best, most credible sources of their own experiences

- Axiology - we declare our bias as favoring the proliferation of Coalition schools and position ourselves as advocates for project-based learning

Data Collection

- Observation of project based classes and project exhibition presentations
  - four (4) separate, two-day site visits; 2 additional visits for exhibitions of learning
- Examination of curriculum guidelines other public documents (handbooks, code of ethics, mission statement), teachers' lessons, and students' projects.
- Interviews were gathered using an open-ended interview protocol
  - Gatekeeper: IDEAS Director
  - 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).
  - 30-60 minutes

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.

- 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.

- Field Working in Partnership/Reflexivity/Challenges to Interpretations

  - One interviews, one observes and takes notes or later listen to each other's interviews and takes notes

  - Code Notes – Primary, Secondary

  - Validation of individually mined themes

  - Follow-up conversations (Jim)

Representation of Findings: Speculative Essays

- We represent our findings as brief, speculative essays on themes that we sought in our analysis. At times 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.

- Our essays represent an initial attempt to understand the CES principles in action and the result of that attempt. The essay topics were chosen to highlight the four CES principles that our data exemplified.

- *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.*

Logsdon, M. B. (2000). *A pedagogy of authority: Speculative essays by an English teacher*.

Findings

- **Learning to use one's mind well**
  - *thinking routines [community meaningful scripts posted on the walls as used]*
  - *taking and representing multiple perspectives [eating bugs, "unpopular" political systems]*
  - *unexpected learning [creating something that doesn't exist vs. hunting for the "right" answer]*
  - *(yoga classes - did not come up in formal interviews)*

- **Less is more, depth over coverage**
  - *interdisciplinary curriculum connections [deforestation tree]*
  - *Learning through failure [advertising dance classes]*
  - *(one project per year - did not come up in formal interviews)*

- **Personalization**
  - *Small groups working with teachers*
  - *Student generated, constructed, presented and evaluated/revised*
  - *Connections with and mentorships from community experts*
  - *Ownership of failures*

- **Demonstration of mastery**
  - *Authentic assessments*
    - *Exhibitions of learning*
      - *Teacher evaluations*
      - *Community evaluations*
  - *Public presentation – a sense of responsibility and dignity*