

# The Ups and Downs of a Project Based Curriculum

What Educators Need to Consider

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How do you feel about a 71% graduation rate? Jay P. Greene (2002) reported it was the national graduation rate in 1998<sup>1</sup>(p.1). How about 28%? That was the graduation rate in the Cincinnati City District. Sound disappointing? The Washington Post (2006) reported more than a quarter of US schools are failing under No Child Left Behind Law (p.A17). More disappointing? Let us not despair...Twenty years ago Chicago's Spry Community School was a part of these failing statistics, but now it graduates almost 100% of its students (2007). What are they doing differently?...Project based learning with a community focus. It is nothing new. It's history dates back more than a century. Project based curriculum deserves a wider implementation. This approach improves the education, performance, and lives of students.

A curriculum based on the Project Based Method differs from other approaches. The definitions of it have changed somewhat, but each has important similarities. William Kilpatrick (1918) believed it should consist of wholehearted, purposeful, and vigorous activity that is in line with the laws of learning and ethical behavior. Rebecca Burns (2005) defined projects as intensive learning experiences that engage students in activities that are interesting to them and important to the course of study (p.2).

The Project Based Method has many benefits for students and schools. It creates internally motivated students with deep knowledge. The built in dedication to projects promote student achievement in collaborative environments. It increases community and parent involvement in school. Students learn communication skills. In a societal context, project assessment becomes natural. All participants assess the successes and failures of projects in their social world.

Schools are becoming more collaborative. Professional Learning Communities (PLCs) are ways of helping educators collaborate to learn about their craft. Our school, Challenger Elementary, began a move toward the PLC approach in the 2006-7 school year. It can minimize the independent work of teaching by focusing on planning. This planning takes place between and across grade levels. Successful project learning for the student requires planning by teachers. It makes sense that if a faculty can collaborate, they will find it easier to facilitate collaboration in their own classrooms.

Leonard J. Waks (1997) traces the history of the Project Method more than a century, tracing its roots to John Dewey, William Kilpatrick, and W.W. Charters (p391-400). Dewey (1900) believed that where active work prevails, a spirit of free communication, an interchange of ideas, suggestions, and results...becomes the dominating note. This fosters 'active participants' in a cooperative, democratic society (as cited in Waks, 1997, p.395). Kilpatrick (1918) states in *The Project Method* that he sought to unify a number of important related aspects of the educative process (p.1). He was unsatisfied with the early 1900s curriculum, and believed that it consisted of a list of tasks to complete without regard for the interest of the student. He agreed with Dewey, that the effective way to educate was through wholehearted and purposeful tasks (p.391). W.W. Charters (1923) agreed that projects were important but argued that Kilpatrick's definition was too broad. Any purposeful activity could be considered a project. Charters defined projects as "a problematic act carried to completion in a natural setting." (as cited in Waks, 1997, p.398). Though this narrows the definition, it was still vague for many. Other educational leaders supported the idea of a project method until a concise criticism of the method surfaced ten years later.

Others believed project learning was essential, but not a method. Boyd Bode rallied against the project method. He agreed that projects should be a large part of a curriculum, but should exist within a framework. The approach proposed by Kilpatrick had too many gaps, and it was irresponsible to assume that the ‘internal energy’ of students would serve to tie the gaps in learning together. Other possible criticisms could be that project learning in an interest area may not benefit students who do not eventually find themselves working in that area. These criticisms stifled project method developments, but did not kill it.

The Project Method has seen resurgence in recent times. Modern educators are reinventing it with positive results. Technology advances have provided tools to make it practical and easy to use. LJ Waks (1997) argues life in the postindustrial era requires a workforce that is collaborative and able to work in tasks with more than one solution<sup>2</sup>. Bode was concerned that a project curriculum may have informational gaps. Advances in teaching skill and curriculum help us to fill in the gaps between information. Planning tools can assist us to fill in these gaps. First, assessment is continuous. We pre-assess and use a combination of formative and summative assessments. Next, we serve as consultants throughout. We communicate using rich questioning through the entire process, to check understanding and extend learning. Finally, we close the project with students to connect big ideas and formulate new questions for continued study.

When implemented correctly, modern day project based activities are real world scenarios that model scaled-down versions of adult activities. The IQWST curriculum is a modern day example of this, and developer Joe Krajcik (n.d.) of the University of Michigan sums it up by writing:

IQWST materials align with national standards, are rooted in principles of project-based scientific inquiry, focus on science’s “big ideas,” and employ research-based practices shown to promote students’ science and science literacy learning. This coordinated curriculum for grades 6-8... build(s) upon students’ prior knowledge and experiences in the real world... Students learn complex scientific ideas by engaging in practices that include working with models, constructing scientific explanations, engaging in argumentation and debate, analyzing data gathered either from students’ own investigations or captured within complex datasets, and presenting ideas to peers(p.1).

I would be interested to hear Bode’s critique of such a curriculum. He may hold fast to his opinion, but I believe his criticism is not as important today as it was then. A curriculum such as IQWST has the supplementation that Bode argued for. For instance, imagine a student is working on a community project that recycles bicycles and retunes them. The retuned bikes are donated to shelter families. When the student realizes that they lack the knowledge of gears to adjust the derailleur, they will need to research. By researching text and internet sources they are supplementing a gap between the action and knowledge required.

Chicago’s Spry Community School is a successful example of project learning efforts. It was failing. The administrators involved the community and started a project-based instruction method. Their graduation rate is now close to 100%. Their philosophy is student success relies most importantly on the family. This approach transformed the school community. Their high school students work on classroom and community based projects. The computer lab bustles with collaborative activity. Local hospitals benefit

from their student interns. They assist in information systems, telecommunications, and patient care. Back at school, other students tutor struggling elementary students.

Our nation's schools are struggling. This is most important for our at-risk students in underserved areas. As the dialog continues about how to increase the quality of education, let us all keep in mind the positives of using project based activities. The more we involve skilled educators and communities in this integrated approach to learning, the more we set up our students and our world for success.

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<sup>1</sup> Lower than rate reported by NCES (National Council of Education Studies), which was 86%. The Manhattan Policy Institute argued that this number included G.E.D candidates and undercounted the dropout rate.

<sup>2</sup> Posing problems with ill-defined solutions in the classroom mimics the real life experience of professionals from actors to project managers. To borrow from the later, a new term coined is agile project management. This is a philosophy that departs significantly from traditional methods. The traditional method, the manager estimates and plans rigidly to be prepared for the customers needs. If customer needs change or are misunderstood, the project manager risks overbudgeting and failure. I have seen this first hand, in my work in environmental consulting, and a struggling project can be anxiety ridden for all participants. Agile project management suggests that the manager probe deep into the needs of the customer. Then pick out parts of the project they are most sure of, and plan those. Other parts of the process fall in to place as the work begins, and the team can move flexibly when the customer's needs change.