

Background

This chapter offers an overview of the motivations and implications for the creation of Quest to Learn (Q2L). In addition to outlining a particular set of needs that the school is attempting to respond to and innovate around, this background also describes the design and development process used in the creation of this document.

The Seed of an Idea

In 2006, the MacArthur Foundation turned its attention to the design of twenty-first-century learning environments that would respond to the needs of kids growing up in a digital, information-rich, globally complex era prizing creativity, innovation, and resourcefulness. As part of this work, in spring 2007 New Visions for Public Schools joined forces with Katie Salen (Center for Transformative Media, Parsons the New School for Design, and Institute of Play, a games and learning nonprofit) in developing an idea for a school that would use “gamelike learning” as a way to empower and engage students from all

walks of life. Q2L is the result of this collaboration and is specific in its focus on connecting student learning to the demands of the twenty-first century and on supporting young people in their learning across digital networks, peer communities, content, careers, and media. The school is being designed to help students bridge old and new literacies through learning about the world as a set of interconnected systems. Design and innovation are two big ideas for the school, as is a commitment to deep content learning with a strong focus on learning in engaging, relevant ways. The school is a place where digital media meets books and where students learn to think like designers, inventors, mathematicians, and more. Q2L brings together teachers with a passion for content, a vision for helping kids to learn best, and a commitment to changing the way students will grow in the world.

Motivation and Implications

The ideas suggested by Q2L are critical to the future of public education in New York City and elsewhere. All young people today need high-quality education more than ever before. Success in the twenty-first century requires mastery of high-school-level mathematics, written and oral communications skills, and the abilities to solve problems, to work as a member of a team, and to use technology. The preservation of democracy in a diverse country demands that schools give children and youth experiences and knowledge that will build the civic competencies of tolerance, intergroup communication, conflict resolution, and engagement in public life.

In too many urban areas, however, the predominant mode of public education—the large comprehensive high school of the 1950s and 1960s—and, more important, the curriculum and pedagogy of those schools are outdated and cannot enable every student to meet high academic standards or gain these skills. Too many students in these schools are unengaged and disconnected, and they see no purpose in their education. There are no opportunities for these students to assume responsibility for significant portions of their own education. They drift through schools staffed by poorly trained teachers, sit in large classes with little inquiry, hands-on experiences, or encouragement to reflect critically, and exist in anonymity among their teachers and many of their peers. These schools are ill equipped to address key academic challenges confronting urban students: personal social and developmental issues, the increasing complexity of material they are expected to learn, and their own alienation from school.

A Need for Innovation

Q2L has emerged at a time when there is a dire lack of American educational models designed to prepare learners for the innovations needed in twenty-first century. The number of U.S. citizens completing science and engineering degrees declines each year. In China, 59 percent of undergraduate students receive degrees in these fields; in Japan, 66 percent do; in the United States, however, only 32 percent do (Shaffer 2006). Thirty years ago the United States ranked third worldwide in the number of science and engineering degrees earned each

year; today it ranks seventeenth. Approximately 60,000 U.S. high school students enter the prestigious Intel International Science Fair each year, but that is a small number compared to *6 million* entrants from China (Shaffer 2006). A recent Trends in International Mathematics and Science Study report indicated that 7 percent of U.S. students scored at the most advanced levels in math, whereas in Singapore 44 percent of students did (Friedman 2006). Worse yet, almost-one third of all students drop out of school in the United States, and only 50 percent of Latino, African American, and Native American students in the United States complete high school (Greene 2002). According to a recent Gates Foundation-funded study, 81 percent of those who drop out of school claim that “opportunities for real world learning” would have improved their chances of staying in school, 69 percent were “not inspired to work hard,” and 47 percent said that “classes were not interesting.” Significant to these findings was also the fact that *only* 35 percent of those interviewed claimed that they left because they were “failing in school” (Bridgeland, DiIulio, and Morison 2006, 4, 7). Taken together, these findings speak directly to the levels of alienation from learning that high school dropouts experience as a result of schooling.

In the meantime, although many students are alienated from school, other data show that their uses of digital media have increased. In March 2005, the Kaiser Family Foundation released a report that found that, on average, youth of both sexes between the ages of 8 and 18 are exposed to 8 hours and 33 minutes (8:33) of digital and other media (defined as the Internet, music, video games, television, and movies) *daily*, black

youth to 10 hours and 10 minutes (10:10) daily, and Latino youth to 8 hours and 52 minutes (8:52). Of those hours, black youth spend an average of 1 hour and 26 minutes playing video games daily; Latino youth, 1 hour and 10 minutes; and white youth, 1 hour and 3 minutes (Roberts, Foehr, and Rideout 2005, 7). Also in 2005, a study by the Pew Internet and American Life project reported that 57 percent, or about 12 million, of online teens between the ages of 12 and 17 are content creators of such things as blogs; a personal Web page; a Web page for a school, a friend, or an organization; original artwork, photos, stories, or videos; remixed content that forms a new creation (Lenhardt and Madden 2005, 8). Interestingly, of these content creators, urban and lower-income youth were more likely than their suburban and rural counterparts to engage in these activities. For example, 36 percent of youth who lived in households with an annual income of \$30,000 or less created online content compared to the 35 percent of youth who lived in households earning from \$30,000 to \$50,000. The percentage for youth living in households earning \$50,000 or higher decreased slightly (Lenhardt and Madden 2005, 12).

This is not to say, however, that we are close to closing the digital divide or, more aptly, “the participation gap,” as Henry Jenkins and his colleagues (Jenkins, Clinton, Purushotma, et al. 2006) call it. Although significant gains have been made in providing minimal access to a computer and the Internet to most youth in schools and libraries, up-to-date technologies continue to move faster than these institutions have been able to sustain. Lower-income communities lag considerably in their acquisition of computers and high-speed connectivity. Also, as Jenkins

and his coauthors explain, accessing technology has become less important than accessing the skills and content necessary to participate in fast-evolving technological trends. Whereas accessing books, visiting museums, and going to concerts used to draw the line between the social practices of middle- and low-income communities, access to technologies and their related social online experiences is now playing a similar role in today's society.

In the past five years, New York City's small-school movement has begun to address these conditions by creating more than 100 secondary schools that function as caring environments where students are known and can excel with one another. Early success is particularly evident through high graduation rates—79 percent for 2006 and 76 percent for 2007—from the first two cohorts of New Visions' New Century High Schools. And this rate is particularly impressive because these schools serve some of New York City's lowest-performing, underserved incoming ninth graders each year. As the most recent evaluation by Policy Studies Associates reveals, "Available data show that students educated in [New Century High [S]chools in 2004–05 were better prepared for graduation than comparable students in traditional schools. All precursors—attendance rates, credit accumulation, promotion rates, and the number of Regents exams passed—pointed in the right direction" (Policy Studies Associates 2006, 61).¹

Games and game-based pedagogy build on these strengths of small schools and promise to create new, more effective classroom learning strategies that creatively engage students in the questions associated with learning complex material and reengaging with schools. Q2L, through its support of gamelike learn-

ing, can incorporate key findings from youth development literature about the environmental factors that greatly increase student resiliency and increase the chances for academic and social success of youth living in high-risk environments. These factors include high expectations of students' abilities and skills; participation in activities that engage their voluntary commitment; opportunities to make contributions and to have these contributions recognized and assessed; and continuity of support. It is critical that students foster these skills not only to succeed in school, but also ultimately to succeed in college and the work world.

Our Design and Development Process

Members of a small core team—Katie Salen, Rebecca Rufo-Tepfer, Arana Shapiro, Robert Torres, and Loretta Wolozin—with support from New Visions staff, including Gloria Rakovic and Ron Chaluisan, have led the development of the Q2L learning framework. Curriculum and teaching experts from a range of areas were consulted and will have an expanded and ongoing role. We have worked with middle school students from the Ross Global Academy throughout the process to date and will extend our reach to students and teachers across the New York City Department of Education (DOE) network as Q2L grows. In addition, the development process has included a range of partners who bring innovation and credibility to the work, including:

The Institute of Play As the founding partner, the Institute of Play is driving the design of the school framework, leveraging its

expertise in the design of learning systems and the uses of games and its work with a range of audiences around games and their design. The institute is staffed by professional game designers and leading researchers in the fields of game-based pedagogy, new media literacies, the learning sciences, assessment, and youth development. It is responsible for the design of Q2L, providing research support, curriculum, and assessment expertise and piloting models for the school as part of the school design process.

Parsons the New School for Design Parsons is providing support and resources related to student recruitment and research work around SMALLab, a mixed-reality learning lab housed in the school.

New Visions for Public Schools New Visions is providing guidance and staff resources related to the design and oversight of the school and supervised the final development of this proposal for submission to the New York City DOE in November 2008.

New York City DOE Bruce Lai, the DOE's chief technology officer, is lending support to the work through facilitating outreach to various school leaders, teachers, and students within the DOE. This facilitation has allowed the Q2L design team to include a range of stakeholder voices in the design process.

MacArthur Foundation Digital Media and Learning Network A MacArthur Foundation planning grant has enabled our team to work with a number of experts in the fields of learning, assessment, and literacy. Key individuals among these experts include:

- Nichole Pinkard, University of Chicago, Center for Urban School Improvement

- Jim Gee, Mary Lou Fulton Professor of Literacy Studies at Arizona State University
- Daniel Schwartz, Stanford University School of Education
- Alice Robison, New Media Literacies Project, MIT
- Connie Yowell, John D. and Catherine T. MacArthur Foundation

The school development team will continue to expand to include parents, students, leaders in the community where the school is located, and a group of expert teachers to lead the curriculum development effort.

Note

1. *Evaluation of the New Century High Schools Initiative: Report on the Third Year*. Policy Studies Associates, March 31, 2006, 61.