

COMMENTARY

New Goals, Familiar Challenges?: A Brief History of University-Run Schools

By Maia Cucchiara, Temple University

In fall 2001, the University of Pennsylvania opened a public elementary school a few blocks away from its West Philadelphia campus. With the opening of this school, Penn joined the list of colleges and universities that have recently gone into the business of operating elementary or secondary schools.¹ In each situation, the university role differs somewhat—for example, Penn is working in partnership with the teachers union and school district, while the University of Chicago and several other universities actually run their own charter schools—but in every case the university is assuming a responsibility that has traditionally been outside of its sphere. Indeed, the founding of many of these schools was at least partly informed by a larger development in higher education: the emergence of a heightened commitment to civic and community engagement on the part of major research universities.

While the openings of such schools have been announced with great fanfare as representing new opportunities for universities, communities, and students,² the idea of a university-operated school is actually not new. In fact, universities have been running schools in the U.S. since the 18th century. As is so often the case in the world of education, the history and legacy of earlier efforts is poorly understood, leaving us with little knowledge of their structures, purposes, challenges, and successes. This paper thus asks the following questions: Why have universities historically gotten into the business of running elementary or high schools and what were the goals and structures of those schools? In what ways is the latest batch of university-operated schools a continuation or divergence from this history? What insights does this histo-

ry provide into contemporary efforts?

In this article, I will use primary and secondary source material to explore the history of these schools, examine the role they have played in the larger educational arena, and attempt to draw some connections between historical versions and their more recent incarnations. I will argue that the latest round of university-operated schools, with their goal of serving low-income, urban communities, represents something of a new direction for this endeavor. I will further argue, however, that an examination of the history of university-run schools has much to offer in terms of understanding the particular challenges such schools face. As universities continue to rethink and restructure their relationship with their communities and to make connections between the university and the real-world practices of schools, it is helpful to see these latest efforts as a chapter in a larger story rather than a wholly new phenomenon.

THE FIRST UNIVERSITY-OPERATED SCHOOLS

University-run or affiliated schools have a long history in the United States. This history reaches back to the earliest colonial colleges, such as Harvard, Yale, William and Mary, and the University of Pennsylvania, many of which operated Latin schools or departments in order to prepare students for college (Good & Teller, 1973). The longest lived of these schools, Rutgers Preparatory, was founded in 1768 and maintained its ties to the university until the 1950s (Sperduto, 1967). Like most preparatory schools, the school at Rutgers was private and provided its students with a fairly elite educational experience. With the increas-

ing availability of high-quality high school education, these schools gradually faded from relevance. At the same time, a number of universities began to explore the “laboratory school” idea.

LABORATORY SCHOOLS

In the nineteenth century, many universities and normal schools (teacher training institutions) opened “laboratory schools.” Unlike college-preparatory schools, laboratory schools were directly related to the research or teacher-training purposes of the universities. These schools have served a number of functions over the years, including teacher training, demonstration, and experimentation. As such, the history of laboratory schools is one of contested definitions and multiple, often competing, purposes (Goodlad, 1995; Hunkins, et al., 1995; Jarman, 1932; Ohles, 1961).

From the earliest incarnations, laboratory schools were dogged by two major tensions with relevance for today’s schools. First, laboratory schools were meant to be models for other schools to imitate. At the same time, however, these schools tended to serve more elite populations and to have more abundant resources than traditional public schools. This tension limited the schools’ relevance and impact. Second, laboratory schools have frequently had multiple goals—beyond the education of the students—that forced administrators to juggle sometimes-conflicting priorities. The sections that follow will explore these issues more closely.

Laboratory Schools of the Nineteenth Century—Teacher Training

The first laboratory schools were

operated by teacher-training institutions. They served as “model schools” where future teachers could observe expert teaching techniques, work with the latest equipment, and hone their own skills. This type of laboratory school first opened in New England in the 1820s and had spread as far west as Minnesota by the 1860s (Wen-Ju, n.d.).

One of the most famous of these schools, the Hunter College Campus Elementary School, opened in 1870 as the Model Primary School. The school was affiliated with a teacher-training institute for women (which would later become Hunter College) and was intended to be a “laboratory” for practice teaching. The founder of the school, Thomas Hunter, used the laboratory metaphor very deliberately: “It may be observed, that the living class of young children is used by the normal teacher in a manner similar to the use of the dead body by a teacher of anatomy” (in Stone, 1992, p. 13). This allusion to an anatomy laboratory for medical students—a place where students become expert in a certain extant body of information—reveals an emphasis on learning and sharpening skills rather than on adding to, or even disrupting, commonly accepted knowledge and practices. (A few decades later, Dewey would use the laboratory metaphor to refer to biology and physics laboratories, with very different implications for the school’s mission.)

Though the Hunter School was public, from its inception it attracted a relatively elite student body. Middle-class parents sent their children to the school because of its strong academic reputation, excellent teachers, and such specialized course offerings as French, German, and music (Stone, 1992). In her history of the school, Judith Stone observes that the school’s privileged population soon threatened the school’s usefulness as a “laboratory” and made it increasingly irrelevant to the teacher-training department it supposedly existed to serve. The children at [the] school were a different population from the “poorer” children at the public schools where the new teachers would actually find work. (Stone, 1992, pp. 15-16)

Hunter solved this problem by sending student teachers to spend time in other neighborhood schools where the children were less privileged. While this solution may have been effective, the problem itself foreshadowed a set of questions that would continue to plague Hunter and other laboratory schools: Can an environment as rarefied as a laboratory school have anything to offer educational practices in general? Or must there always be a divide between the “ideal” world of the laboratory and the “reality” of what is possible in most schools?

Progressive-Era Laboratory Schools— Research and Experimentation

Another type of laboratory school, one that focuses on research, innovation and bridging theory and practice, is closely identified with John Dewey’s Laboratory School at the University of Chicago. When Dewey joined Chicago’s faculty in 1894, William Harper, the president of the university, was in the process of creating a new kind of university, which moved beyond the traditional function of disseminating knowledge and embraced research and the training of researchers (Tanner, 1997). Dewey’s discussion of his school’s mission—and his use of the term laboratory—was consistent with Harper’s own interest in generating new knowledge:

It bears the same relation to the work of pedagogy that a laboratory bears to biology, physics or dentistry. Like any such laboratory, it has two main purposes: (1) to exhibit, test, verify and criticize theoretical statements and principles; (2) to add to the sum of facts and principles in its special line.” (Dewey, 1896, in Van Til, n.d.)

Similarly, in *School and Society* (1900), Dewey explained that the laboratory school would further the university’s research agenda: From the university standpoint, the most important part of [the school’s] work is the scientific—the contribution it makes to the progress of educational thinking.... Only the scientific aim, the conduct of a laboratory, can furnish a reason for the maintenance by a university

of an elementary school.” (p. 96)

Unlike earlier laboratory schools, Dewey’s school was not to be a site for teacher training. Instead, it would be a place where he could study children’s learning, test and refine his theories, and create a curriculum “in which developmental, intellectual, and social goals were viewed as inextricably intertwined” (Tanner, 1997, p. 8).

The Laboratory School (originally the University Elementary School) opened in 1896 with sixteen pupils. When Dewey left the University of Chicago in 1904, there were 140 students, 23 teachers, and a number of assistants. From the very beginning, the school was the object of a great deal of attention. Dewey himself wrote numerous articles and lectures about his experiences with the school, and in 1903 an entire issue of the journal *The Elementary School Teacher* was devoted to the topic (Cremmin, 1962, p. 139, note 3). A recent revival of interest in Dewey’s work is manifest in books like Laurel Tanner’s (1997) *Dewey’s Laboratory School: Lessons for Today*, which examines the school’s implications for contemporary educational reform challenges.

In 1936, Katherine Camp Mayhew and Anna Camp Edwards, two former teachers at the school, published the most comprehensive portrayal. *The Dewey School* discusses the school’s history, theoretical underpinnings, curriculum, organization, as well as its day-to-day practices. Mayhew and Edwards describe a school built upon the premise that learning is natural, social and experiential, a school that strove to overcome the traditional fragmentation of the curriculum and the students’ experiences. As Dewey observed, the school’s practices grew from his theories about learning and society:

Because of the idea that human intelligence developed in connection with the needs and opportunities of action, the core of school activity was to be found in occupations, rather than in what are conventionally termed studies. Study ... was to be an outgrowth of the pursuit of certain continuing or consecutive occupational activities. Since the development of the intelligence

and knowledge of mankind has been a cooperative matter... occupations were to be selected which related those engaged in them to the basic needs of developing life, and demanded cooperation. (in Mayhew and Edwards, 1936, p. 5)

Student projects, such as weaving fibers into cloth, involved extensive study of different materials, experimentation with various approaches, and examination of the connections between the students' own processes and the historical development of technology (Dewey, 1900; Mayhew and Edwards, 1936).

Dewey believed the Laboratory School would stimulate change in other schools by proving that it was possible to put his theories about learning into practice: "We do not expect to have other schools literally imitate what we do. A working model is not something to be copied; it is to afford a demonstration of the feasibility of the principle, and of the methods which make it feasible" (1900, p. 94). Once this "feasibility" had been established—and his theories could no longer be dismissed as unrealistic—educators would be free to work out their own methods based upon those same principles (Jackson, 1990). As a result, Dewey believed, the effects of his work with the Laboratory School would be both gradual and profound (Tanner, 1997).

In his discussion of the long-term implications of Dewey's Laboratory School, Philip Jackson (1990) points to a problem similar to the one Thomas Hunter encountered a few decades before: the privileged student body and the abundant resources of the school. Many of the parents of Dewey's students were on the faculty at the University of Chicago—Dewey's own children attended the school—and most were middle-class, able to pay tuition, and interested in education. In addition, the Laboratory School had a very low student-teacher ratio, a highly qualified staff, ample equipment and the resources of the university at its command (Jackson, 1990). Not surprisingly, visitors to the school occasionally commented that Dewey was able to accomplish things that would be impossible in less fortunate environ-

ments (Dewey, 1900, p. 93). Dewey's response to this accusation, that his experiment required "particularly favorable conditions in order that results may be rendered both freely and securely," seemed to dodge the generalizability question (Dewey, 1900, p. 93; Jackson, 1990, p. xxxi). Jackson argues that the ideal conditions of the Laboratory School meant that it "became relatively easy and ultimately commonplace to dismiss what went on there as impractical or as not transferable to other, more ordinary settings" (1990, p. xxxiii-xxxiv). As a result, while Dewey's school achieved a great deal of notoriety, its impact on educational practices in general has been surprisingly limited (Jackson, 1990).

During the first decades of the twentieth century, a number of colleges and universities followed Chicago's lead and opened their own inquiry-oriented laboratory schools. One of the most famous of these was the Lincoln School, operated by Teachers College, Columbia University, from 1917 to 1948. Abraham Flexner, one of Lincoln's founders, observed that the school was intended to be a site for research and experimentation, "a laboratory first of all, which would test and evaluate critically the fundamental propositions on which it is itself based, and the results as they are obtained" (Flexner, 1923, in Cremin, 1962, p. 281). Flexner's use of the term laboratory resembles Dewey's, and, indeed, Lincoln and the Chicago school were similar in many ways.

Lincoln maintained its experimental orientation throughout its years of operation. As one enthusiastic observer of Lincoln noted, the school's interest in experimentation focused primarily on curriculum: "In the vanguard of the movement that is revolutionizing secondary education in America is Lincoln School, which for over ten years has been steadily and persistently experimenting in the field and is working out a new and dynamic curriculum..." (de Lima, 1941, p. 2). The result of this emphasis on constant improvement was, according to historian Lawrence Cremin, a remarkable school where "morale was high; classroom teaching was generally good, frequently excellent; and a pioneering spirit pervaded

the activities of teachers, students, and parents alike" (1962, p. 282-3).

Like Dewey's Laboratory School, the Lincoln School was the focus of a great deal of attention. Publications about the school include personal memoirs, outlines of curriculum, and an issue of *Teachers College Record* in the 1930s (Cremin, 1962, p. 382). Teachers at the school also worked with Agnes de Lima to write two books about Lincoln, books that include pictures of students, discussions of the school's mission and philosophy, and descriptions of classroom practices. In *Democracy's High School* (1941), de Lima and her collaborators depict a school that was in many ways reminiscent of Dewey's Laboratory School. Both emphasized social as well as intellectual development, preparation for life in a democracy, and meaningful learning experiences (Cremin, 1962; de Lima, 1941). The Lincoln curriculum was "based on a searching study of the needs and capacities of children and of the social necessities of our culture and time" (de Lima, 1941, p. 2) and culminated with an examination of contemporary social and economic issues (Cremin, 1962, p. 286).

Lincoln School was also similar to the University of Chicago's Laboratory School in that it served a privileged population with an abundance of resources. It was private, and the students were generally affluent and college-bound (Cremin, 1962, p. 287). The school also had copious equipment and supplies, offered a wealth of courses and activities, and provided a variety of travel and extracurricular opportunities (Cremin, 1962, p. 286). In addition, Lincoln's faculty, which included famous educator and social reconstructionist Harold Rugg, was a particularly talented and creative group who produced their own texts, curriculum guides, and workbooks (Cremin, 1962, p. 282). As a result, Lincoln (and the Institute of School Experimentation that was to publicize its work) faced the same problem that confronted other laboratory schools attempting to share their findings with the larger educational community: "Seeking to serve as a link with the public school, the Institute soon ran into the age-old problem that much of what succeed-

ed under laboratory conditions was not readily applicable to the schools at large" (Cremin, 1962, pp. 289-90).

In 1915, John Dewey and his daughter Evelyn published *Schools of Tomorrow*, a collection of portraits of progressive schools in the United States. While not all of these schools were university-operated, several were, and their descriptions are quite informative. Of the schools described, only one—a kindergarten run by Teachers College—appears to have shared the Chicago laboratory school's emphasis on inquiry. According to the Deweys, the kindergarten's mission was to develop an early childhood curriculum that was truly of educational value:

To find what is of real worth, experiments have been conducted, designed to answer the following questions: "Among the apparently aimless and valueless spontaneous activities of the child, is it possible to discover some which may be used as the point of departure for ends of recognized worth? ... Is it possible for the teacher to set problems or ends sufficiently childlike to fit in with the mode of growth, and to inspire their adoption with the same fine enthusiasm which accompanies the self-initiated ones?" (1915, pp. 110-111)

Other university-operated schools seemed to focus less on research and experimentation and more on putting the theories of Dewey and other progressive educators to work. For example, the Elementary School of the University of Missouri had, as "its fundamental idea, that education shall follow the natural development of the child" (1915, p. 41). The 115 students at the school, which was under the direction of a professor, began their studies by learning about those things that were directly related to their lives: weather, food, shelter, clothing, and the life of their community. When the students grew older, the focus of their studies shifted—"due to the widening interests that are coming to the child" (p. 51)—to local and world industries, literature, and languages. Other institutions, including Bryn Mawr College and the "city university" in Pittsburgh, were also able to

use their schools to implement the latest in educational theory and practice.

Speyer— A school ahead of its time. Unlike its privileged peers, one university-run school was expressly committed to educating less fortunate students. Between 1899 and 1915, Teachers College operated the Speyer School in a low-income neighborhood near campus. Like other university-run schools, Speyer had an experimental orientation. Its goals, however, had more to do with community than curriculum:

In short, the purpose is to serve the community in every possible way and particularly to experiment in ways and means of bridging the gap between the close of public school work and the time when young men and women settle down to permanent employment at eighteen or twenty years of age. (James Earl Russell, in Puckett, n.d., p. 2)

The school was at once an elementary school, a site for teacher training, and a social settlement where community members could meet for social, recreational, and educational activities (Puckett, n.d.). Historian John Puckett calls Speyer the "first community school," the precursor of a movement that would affect schools across the country a few decades later. While Speyer's founders were inspired by Dewey's work in Chicago, the teaching at the school was inconsistent and frequently less than inspiring:

More seriously, the Speyer School curriculum was neither community-centered nor action-oriented. It is evident that Frank McMurry and his colleagues attempted to transplant elements of Dewey's Laboratory School at the University of Chicago to a working-class neighborhood in New York City. Unfortunately, McMurry followed Dewey's actions and ignored Dewey's theory. (Puckett, n.d., p. 7)

The Speyer School is nevertheless noteworthy for serving a disadvantaged population and addressing directly the problems in a low-income, urban community. In this respect, it

could also be seen as a precursor of today's university-operated schools.

Laboratory Schools Since the Progressive Era

In the 1930s, two studies of laboratory schools affiliated with colleges or universities revealed that the focus of these schools had essentially returned to teacher training (Eubank, 1931; Jarman, 1932). In fact, one study's operating definition of *laboratory school*—"any school used by the education department for observation, participation, directed teaching, etc."—makes no mention of experimentation or research (Jarman, 1932, p. 4). However, this shift does not mean that inquiry was entirely excluded from the laboratory school agenda; according to Jarman, "research is recognized as one of the primary functions of the university high school" (1932, p. 89), and Eubank commented that "experimentation holds a minor place in the laboratory schools" (1931, p. 24). In general, though, laboratory schools in the '30s were sites for the demonstration of high-quality instruction, observation, and practice teaching.

The emphasis on teacher training and demonstration continued throughout much of the century. In the 1950s and '60s, however, many teacher educators became interested in conducting research and training teachers in "real world" settings rather than in laboratory schools, which seemed too far removed from the realities of most schools ("Overview of Laboratory Schools," n.d.). Without a research agenda, laboratory schools often had difficulty justifying their continuing existence, particularly when funds were scarce. As a result, a number of universities responded to financial pressures by closing their schools and shifting student teaching and research to the public schools (King, 1984; Van Til, n.d.). The number of laboratory schools declined steadily throughout the '60s and '70s, from a high of 200 to about 100 by the end of the 20th century (King, 1984; McConnaha, n.d.). Recently, the spread of Professional Development Schools—public schools where expert teachers train future teachers,

model “best practice” techniques, and work with university faculty to conduct research and design and participate in professional development—has posed another threat to the teacher-training function of laboratory schools.

Several of the laboratory schools that remain resemble their predecessors in name only. For example, the University of Chicago Laboratory Schools have evolved into high-achieving schools that serve the children of faculty members and contribute to neighborhood stability while emphasizing neither teacher training nor experimentation (Jackson, 1990; Tanner, 1997).³ In his introduction to *Dewey's School and Society & The Child and the Curriculum*, Philip Jackson is quite critical of Chicago's schools:

Whatever else today's Laboratory Schools might be, they certainly are not the educational laboratory their founder envisioned. What has disappeared over the years is not the institution itself, which, if anything, seems to have prospered. What is missing today is the schools' entitlement to the key word “laboratory” that continues to define the kind of school it purports to be. (1990, p. xiii)

The University of Chicago is not alone in this respect; a number of contemporary university laboratory schools also appear to serve primarily to provide a superior educational experience to the children of faculty and other middle-class families (Tanner, 1997).

Advocates have responded to the decline of laboratory schools by arguing that these schools do have a role to play in efforts to improve education in the United States. For example, writing in the 1980s, King (1984) argued that laboratory schools represent a unique means of linking schools and universities and can provide university faculty with an opportunity to innovate or take risks with research in a way that public schools would not allow. King worked with the University of Hawaii's laboratory school, which used a focus on curriculum development and teacher training to make continued contributions to the field of education. Another laboratory school proponent claims that the schools' ad-

vantages—the ability to collaborate with outside organizations, implement program changes, and develop curriculum in a way that public schools hindered by bureaucracies cannot—make them the perfect vehicles for education reform initiatives (McConnaha, n.d.).

Criticism of Laboratory Schools

While laboratory schools clearly have many defenders,⁴ their critics are quick to point out that the problems that have long plagued such schools may well be bringing about their demise. One of the most common complaints about laboratory schools is that they do not embody a clear sense of purpose or mission. Their many functions—research, experimentation, demonstration of “best practices,” and teacher training—have tended to conflict or, at the very least, share an uncomfortable coexistence. John Goodlad, who served as the director of a laboratory school at the University of California at Los Angeles, argued that participants have brought too many agendas to the laboratory school enterprise:

The student teacher wants to get employed, the laboratory school teacher wants to demonstrate pedagogical expertise; the experienced teacher visiting in the school hopes to see something he or she can use next week; the professor in a campus department wants access to a research facility with a minimum of hassle; the director of the school probably wants good teaching, experimentation and innovations, and a vigorous research program—all simultaneously. Something has to give. Too often, everything gives and the school ends up doing little or nothing well. (1980, cited in Hunkins, et al., 1995, p. 102)

This problem is not particularly new. In 1932, Jarman observed that the laboratory schools in his study were encumbered by their multiple goals, and thirty years later Ohles (1961) noted that it is not possible to conduct research, train future teachers, and model best practice all in one school.

Observers of laboratory schools who criticize this tendency to “become

everything to everybody” point to the Dewey school as an example of how successful a school with a clear sense of mission can be (“Overview of Laboratory Schools,” n.d.). At the University of Chicago Laboratory School, inquiry was *the* goal, not one of many. This sense of purpose was so powerful that it spread beyond the researchers themselves and infected teachers and students as well (Mayhew and Edwards, 1936; “Overview of Laboratory Schools,” n.d.). While other schools have attempted to follow Dewey's model, the intrusion of additional objectives has frequently inhibited their success (Goodlad, 1995).

Another criticism of laboratory schools has to do with their relatively elite student body and the wealth of resources available to them. This issue—which surfaced for the Hunter school in the late nineteenth century and also confronted Dewey's Laboratory School and the Lincoln School—continues to trouble researchers and teacher educators interested in working with laboratory schools. Because laboratory schools are usually private and their students are often the children of university faculty, the generalizability of research conducted there is questionable (Hunkins, et al., 1995). In addition, many believe that student teachers today—like those at the nineteenth-century Hunter school—need experience working in settings that are more representative of public schools in general.

UNIVERSITY-OPERATED SCHOOLS AT THE TURN OF THE 21ST CENTURY

Despite the closing of laboratory schools around the country, the university-operated school idea has experienced something of a revival during the past two decades, and the number of colleges and universities that have opened elementary or high schools continues to grow. Here I will focus on a subset of these: The University of California at San Diego, Columbia University, Wayne State University, the University of Chicago, the University of South Florida, Stanford University, and the University of Pennsylvania. This sample was chosen to illuminate key patterns in the ways universities are approaching the op-

eration of schools. Two of the schools in this group were among the earliest to operate charters, two run networks of charters, one opened a neighborhood public school, and one founded a private school. In some ways, the schools these universities run are reminiscent of earlier efforts, while in others they represent a new direction.

In the sections that follow, I will discuss the seven aforementioned schools, providing a brief profile of each and exploring the connections between these schools and the traditional functions of university-run schools. However, because all of the schools I will discuss are relatively new, information about the projects is fairly limited. The material discussed here comes primarily from university and school websites and newspaper reports and, as such, has more to say about what the universities would like their schools to be than about the actual workings of each school.⁵ Indeed, this section is not intended to be a comprehensive review. Instead, it begins to sketch the landscape of contemporary university-operated schools and to suggest ways these schools could be categorized and understood, with the intention that future research could build upon these descriptions with more comprehensive data and analysis. Thus, the information provided here conveys a sense of each university's mission and priorities for its school, makes preliminary comparison and discussion possible, and sets the stage for future research.

For heuristic purposes, I will divide these schools into two groups—schools focused on providing a good educational option in the neighborhood adjacent to a university (The School at Columbia University and the Penn-Alexander School) and schools designed to bring the resources of the university to bear on the challenges of educating low-income urban students (Stanford, USF, UCSD, Wayne State, and University of Chicago). Here I will provide a very brief introduction to each school. In the next section, I will make some observations about historical connections, arguing that there are both continuities and discontinuities in mission and structure between this pool and earlier university-operated

schools and linking the latest generation of university-run schools to a renewed emphasis among universities to civic and community responsibility.

Educational Options for Faculty and Community

Both the University of Pennsylvania and Columbia University have struggled to provide quality, affordable educational options to faculty members and families in their surrounding neighborhoods. In many ways, the School at Columbia University, which opened in 2004, has more in common with earlier university-run schools intended for middle-class children than with contemporary versions. The school is private and was designed to serve the children of Columbia faculty members. Because private schools in New York City are extremely expensive and public schools with good reputations are quite selective, many Columbia professors struggle to find schools for their children that are both acceptable and affordable (Wilson, August 2000). This situation, exacerbated by the overall high cost of living in New York City, often makes it difficult for Columbia to attract and keep faculty, especially faculty with young children. By providing discounted tuition and automatic acceptance to the children of Columbia professors, the University hoped to use its new school to make life in New York City more attractive (Wilson, June 2000).

The school is located on the edge of the Columbia campus; half of its spots are reserved for Columbia University faculty and the other half are open to children in the neighborhood. Tuition is steep (\$28,000 for 2008-9), but the school provides over \$4.5 million in financial aid annually.⁶ Like earlier laboratory schools, The School at Columbia University sees itself as a place to model a unique approach to teaching and learning. To a lesser degree, the school's relationship with Columbia University facilitates a training agenda: the school is a site for student teachers, and school faculty take courses at Teachers College. It is not clear that the school is viewed as a site for original research: school materials make little

mention of research and focus instead on the school's rich curriculum and its role as a recruiting device for faculty.

While also designed to serve an immediate neighborhood, the University of Pennsylvania's Sadie Alexander School (also known as the Penn-Assisted School or Penn-Alexander School) is public and part of the local public school system. The Penn school was developed in partnership between the University, the School District of Philadelphia, and the Philadelphia Federation of Teachers and opened its doors in 2001 to students in West Philadelphia. The school was designed to relieve overcrowding at local elementary schools, foster high achievement among its students, and serve as a "demonstration school." It is a site for professional development, clinical training for pre- and in-service teachers, and testing and refining curriculum and instruction.

This project is a part of the University of Pennsylvania's larger effort to revitalize the surrounding neighborhood, an effort that includes attracting and supporting businesses, encouraging home-ownership, and providing assistance with neighborhood safety and clean-up projects. Though the School District of Philadelphia funded the school's construction and is responsible for operating expenses, Penn provides \$1000 a year for each student in order to keep class sizes small and is renting the land to the district for a nominal fee. Academically, the Penn school has been quite successful. Its students score well on state standardized tests, the school has an excellent reputation within the city, and spots at the school, particularly in kindergarten, are in such demand that property values have increased dramatically in its "catchment area." According to one source, location within the catchment area adds \$25-50,000 to the price of a house (Katz, 2008). While this has certainly contributed to the neighborhood's revitalization, critics argue that it is leading to decreased diversity as working-class African American families move out and middle-class white families move in (Dubilet, 2004; Katz, 2008).

Tackling the Challenges of Urban Schooling

In the past two decades, the University of California at San Diego, Stanford University, University of South Florida, Wayne State University, and University of Chicago have all turned their attention to one of the nation's most intractable problems: educating low-income urban students to high levels. These schools thus represent a shift in both institutional structure and mission from earlier generations of university-operated schools. With respect to structure, rather than operating private schools, their sponsoring institutions have taken advantage of charter school laws to open privately run public schools. Relatedly, rather than provide an innovative or "model" education to students whose parents can afford it, the schools were explicitly designed to bring the resources of the university to bear on the education of low-income youth.

Wayne State University, in Detroit, was the pioneer in this respect. It opened University Public School, the first charter school in the state, in 1991. University Public School's stated goal was "to prepare all students academically, emotionally, physically, perceptually, and socially to become productive adults in a culturally diverse, rapidly changing and highly technological society."⁷ Administrators at Wayne State had observed that many of its students—graduates of the Detroit public school system—were unprepared for the demands of higher education, and they hoped to provide Detroit students with a more rigorous educational experience (Lively, 1994).

According to Wayne State's president at the time, the university also hoped its school would contribute to neighborhood revitalization:

The university would like to operate in a neighborhood that is stable, with good schools. One reason people don't move back into the city and people don't move into this neighborhood is that there hadn't been schools they could be confident about. (Lively, 1994)

Thus, like the Penn school, University Public School was de-

signed with both educational and revitalization goals in mind.

University Public School, which was located in a low-income neighborhood about one mile from the Wayne State's Detroit campus, served sixth, seventh, and eighth graders. All students in Detroit were eligible to apply to University Public School, and acceptances were determined by lottery. An early evaluation struck an optimistic note, describing the school as having developed an innovative organizational structure, satisfied parents, and responded to students' social and psychological needs. The report was less positive about the school's curriculum and instruction, noting that it was not particularly innovative and had not received enough teacher and administrator attention (Dennis, Colombo, and Sawilsky, 1996). In 1998, University Public School was placed on the state's list of "unaccredited schools" because of its low test scores. In 2002 administrative responsibility was returned to the Detroit Public Schools and the school was merged with an existing middle school.

Another early innovator was similarly short-lived. Designed by the University of South Florida's (USF) Institute for At-Risk Infants, Children, Youth, and Their Families, the Patel Charter School opened its doors in 1998.⁸ The school, which served low-income kindergarten through fifth-grade students, attempted to foster "maximum individual and personal development for each student" by providing a "comprehensive educational program to support, encourage, and nurture at-risk children and their families." In keeping with its focus on at-risk children, the Patel School emphasized collaboration between teachers and local agencies to ensure that children and their families received the medical, mental health, child-care, and social services they needed.

While USF's Patel School opened to great acclaim, it struggled with high teacher and principal turnover and low test scores. In 2008, the school was, like Detroit's University Public School, turned over to the public school district. A newspaper editorial published at the time criticized USF and school leaders for incompetence, noting that "poor

planning and a troubling lack of oversight doomed the USF-Patel Charter School from the start" and arguing that USF failed to live up to the "big promises" it made about improving the school (Tampa Tribune, 2008). Thus, despite great ambitions, both Wayne State and USF failed—as have many before—at the task of providing high quality educational experiences and increased learning for low-income students.

Two other universities, also interested in meeting the needs of low-income students, have established networks of schools. In 1998 the University of Chicago opened the North Kenwood/Oakland Charter School (NKO), serving kindergartners through eighth graders.⁹ NKO was chartered by the Center for School Improvement, a research and development organization at the University of Chicago that supports education reform in the Chicago public schools. The school's mission is "to provide an excellent education for a representative group of urban students, while serving as a school development center for urban teachers." NKO furnishes students with after-school instruction and tutoring, as well as "wrap-around services" for children and their families. The university has since added to its portfolio and now operates four charter schools in the city—two elementary schools, one middle school, and one high school. While NKO is known as one of the most successful charter schools in the city, Donoghue, an elementary school opened in 2005, has experienced more challenges. A 2006 Chicago *Sun Times* article described the school as plagued by discipline issues and low student achievement (Grossman, 2006).

The Stanford University schools are also charters. In 2001, Stanford New Schools (a non-profit organization tied to the university) opened East Palo Alto Academy. The school is explicitly focused on preparing students for college: it offers college-credit courses, and every classroom door is painted with the name of a college (Sturrock, 2005). Five years later, the university opened an elementary school, East Palo Alto Academy Elementary School. Acclaimed education researcher and reformer Linda Darling-Hammond

has been instrumental to the initiative and to the crafting of a relationship between the schools and Stanford's School of Education. She explains that, in addition to the goal of providing students with a quality education, the schools also help educators "learn more about how to successfully teach a wide range of students, prepare new teachers, and create more productive schools—lessons that inform our research and our own preparation program" (The Stanford Challenge, n.d.). The schools work with predominantly low-income populations, and the majority of their students speak Spanish as their first language. Despite some evidence of improved student achievement, the schools continue to struggle with low test scores. In fact, the local school board recently voted to eliminate kindergarten through fourth grade at the elementary school because of persistently poor student achievement (Bernstein-Wax, 2010).

Of this group, the school that has experienced the clearest success thus far is the University of California at San Diego's Preuss School. Unlike the other university-run schools, Preuss was opened as a direct response to a major policy change. When the University of California System's Board of Regents voted in 1995 to end affirmative action, administrators at the University of California at San Diego (UCSD) were concerned that racial and economic diversity at the school would suffer (Basinger, 1999). They responded by creating the Preuss School, a charter school with an explicit mission: "...to improve educational practices and provide an intensive college preparatory school for low-income student populations, which are historically underrepresented on the campuses of the University of California."¹⁰ By providing disadvantaged students with a rigorous educational experience and exposing them to life on a college campus, Preuss' founders hoped to reduce the achievement gap between low-income students and other students and increase racial and economic diversity at schools like UCSD.

A charter school serving middle- and high-school students, Preuss opened in 1998 and draws students from all over the city and county. Only

those who qualify for free or reduced lunches and whose parents or guardians are not graduates of four-year colleges are eligible for admission to Preuss. In addition, applicants must demonstrate "high motivation and family support" in order to be accepted to the school. UCSD donated land and raised funds from private donors for the school's building, which is located on the college campus, while operating expenses come from the state and the local school district.

Preuss also serves as a demonstration school of sorts, showing that it is possible to use innovative practices to reduce the achievement gap and prepare students for college. For example, in 2006, Doris Alvarez and Hugh Mehan (the school principal and one of its founders, respectively), published an article describing Preuss's successful experience with detracking and enrolling all students in a college preparatory program. They argue, "This gives us an existence proof that detracking (i.e., presenting underserved students with a rigorous academic program, supplemented by a comprehensive system of academic and social supports) can propel students from low-income households toward college eligibility and enrollment" (Alvarez and Mehan, 2006, p. 82). By any number of indicators, the Preuss School has experienced extraordinary success: its test scores are consistently high, over ninety-five percent of its graduates go on to college, a Preuss teacher was recently named California Teacher of the Year, and the school was listed as number ten in *U.S. News and World Report's* "Top Public High Schools."

NEW SCHOOLS, FAMILIAR GOALS?

College Preparation

Only one of the schools discussed here, UCSD's Preuss School, has embraced that earliest mission of university-operated schools—preparing students for a particular college and streamlining the transition from school to sponsoring university. Like Rutgers Preparatory and other early academies, Preuss offers a course of study, which all students are required to follow, that meets all of its sponsoring

university's admissions requirements. The major difference, of course, between Preuss and previous preparatory schools is the student body. While the students at Rutgers Preparatory School were a fairly elite group, with parents able to pay private-school tuition, Preuss serves only disadvantaged students. Essentially, Preuss is intended to provide an elite, college-preparatory education to students who normally would not have such an opportunity. While Stanford's East Palo Alto Academy does not have the seamless school-to-university pipeline that Preuss does, it too has institutionalized its focus on college preparation.

Teacher Training

The traditional focus on teacher training has been modified somewhat by the most recent university-run schools. Penn, USF, Columbia, and Stanford all refer specifically to using their schools as sites for student teaching, but at none of these schools does teacher preparation appear as a primary focus. Wayne State's materials made no reference at all to teacher education, and at UCSD's Preuss School, professional development is an important component of the program, but it appears to be targeted only towards teachers on the school's staff.

While training future teachers does not seem to be as primary to any of the schools discussed here as it was to the laboratory schools of the 1930s and '40s, the idea of using the university-run school as a vehicle for changing teachers' practice has by no means disappeared. Both the University of Chicago and the University of Pennsylvania have embraced the demonstration school concept and serve as sites for professional development for teachers throughout their districts. According to the NKO's website the school is a "development center for urban teachers," where Chicago public school teachers can observe innovative and effective strategies and, eventually, "come to the school for hands-on experience in good-practice techniques." The Penn school operates in collaboration the university's Graduate School of Education and provides

“as many opportunities as possible for educators throughout the network to participate in cross-school visits, peer consultation, professional residencies, workshops, applied research and graduate coursework....” Both institutions emphasize the links between the schools they operate and the other schools in their districts and the positive effects their professional development programs will have on the overall quality of instruction in the area.

Research and Experimentation

All of the schools I am profiling here have—or had—some research component. At Wayne State and USF, that component seems to be fairly limited and to focus primarily on assessing the effectiveness of the schools’ programs. Columbia, UCSD, Stanford, Penn, and the University of Chicago all would like their schools to play some role in developing and disseminating new ideas about curriculum and instruction. Both UCSD’s Preuss School and the University of Chicago’s NKO Charter School are affiliated with research and advocacy centers, and the proposal for the Preuss School also called for the creation of a center that would coordinate all university research in public schools (Basinger, 1999). Faculty members at Penn work with teachers at the new school to plan and conduct research that will “contribute to enhancing the school’s instructional and professional development programs and to increasing knowledge about successful educational practices.” At none of these schools, however, is the emphasis on inquiry as complete as it was at Dewey’s Laboratory School.

A NEW PURPOSE FOR UNIVERSITY-RUN SCHOOLS: EDUCATING INNER-CITY STUDENTS

While several of the schools discussed here conduct research and involve themselves in teacher training, their real mission (with the exception of the Columbia school) seems to be to do something more—to provide students who are underserved by contemporary school districts, particularly in urban areas, with a high-quality edu-

cation. In this sense, they are entering an arena explored a century ago by the Speyer School but avoided since by most university-run schools. The universities undertaking this project are also offering an implicit critique of the educational status quo and demonstrating a fresh sense of responsibility for their surrounding communities.

Like many universities around the country, these institutions could limit their involvement with public education to work in existing schools or even to the formation of “partner schools.”¹¹ The fact that they are choosing to go further and actually develop and operate a school reveals both the concern their administrators feel about existing educational opportunities for local students and a fundamental skepticism of school systems, particularly in the inner city. While politics may prevent other administrators from being so blunt, the frustration expressed by University Public School principal Frederick Borowski—“The system has failed these kids. Can we come up with solutions?”—is widespread (Lively, 1994).

One source of concern about traditional urban schools appears to be the bureaucracy that is seen as an obstacle to reform and innovation. It is striking that of the public schools profiled here, all but one is a charter school operating independently of the local school district. In their materials, several of the universities mention that their school’s charter status will enable them to sidestep such bureaucratic hurdles. For example, Preuss will be “free to develop its own innovative program,” and the USF school was “able to break through the regulatory process and concentrate on education” (Deopere, 1997). Articles about the new schools also highlight their freedom from bureaucracy—nods to the general sentiment that “the system” is at fault (Bustos, 1998; Lively, 1994).

Of course, the mixed outcomes of these schools—the failures of USF’s Patel School and WSU’s University Public School, the success of UCSD’s Preuss and University of Chicago’s NKO schools, and the ongoing struggles of the others—demonstrate that simply forming a charter is no guarantee. This is consistent with the research find-

ings on charter schools overall, which has found enormous inconsistencies from school to school and no uniform or aggregate benefits (Zimmer, Blanc, Gill, and Christman, 2008; Center for Research on Education Outcomes, 2009). The stories of USF and WSU remind us that, even with all their human and financial resources, universities are not immune to the many organizational, financial, and instructional challenges charter schools face.

While university-run charters are different in many ways from earlier university-operated schools, the experiences of these earlier schools nevertheless have important implications. Schools like Preuss, which endeavor to show that it is possible to educate large numbers of low-income students to high levels, avoid the concerns about an elite student body that the laboratory schools faced, but they still have more resources, because of the university’s contributions, than do traditional public schools. On the one hand, this implies that such interventions would be expensive to “scale up.” On the other hand, it also demonstrates that, when provided with adequate resources and supports, low-income and minority students can excel in large numbers, an enormously important contribution.

The issue of multiple and competing goals—which also troubled laboratory schools—is another important one to consider. As these schools take on the challenges of urban education, it will be essential to assess the extent to which they are able to remain focused on this as their primary purpose. With the resources of a major university can also come additional demands—particularly for research and teacher education sites. Yet history tells us that the more such schools become distracted from their central mission, the less likely they are to succeed.

University-Run Schools and University Civic Engagement

In the 1980s, many university faculty and administrators began to question the degree of alienation that existed between the goals and concerns of the outside world and the life of the university. The result has been a

“University Civic Responsibility movement,” in which universities across the country articulate their commitment to working with their communities, addressing pressing national and local problems (rather than issues of interest only within the academy), and making the preparation of engaged, responsible citizens central to their educational mission (Benson, Harkavy, and Puckett, 2007, p. 111). Thus, the Wingspread Declaration on Renewing the Civic Mission of the American Research University,” the product of a collaboration of major universities, foundations, and other organizations, proclaims:

We need to help catalyze and lead a national campaign or movement that reinvigorates the public purposes and civic mission of our great research universities and higher education broadly. We need to renew for the next century the idea that our institutions of higher education are, in a vital sense, both agents and architects of a flourishing democracy, bridges between individuals’ work and the larger world. (Campus Compact, 1999)

As further evidence of the strength of this movement, the Campus Compact coalition (a group of university and college presidents “committed to the public purposes of higher education”) went from two members in 1988 to over 1,000 in 2006 (Campus Compact, 2007). In a study of university civic engagement, Ostrander identifies five reasons universities have moved in this direction: the desire to make higher education “relevant” in the face of continued criticism, concern about the decline of democratic and civic participation in U.S. society, interest on the part of faculty in making academic knowledge more broadly useful, a sense of crisis about enduring social problems (such as poverty and inequality), and the need to maintain positive relations with local stakeholders (2004, p. 78).

The University of Pennsylvania has been at the forefront of this movement, particularly Penn professors Ira Harkavy and John Puckett. They argue that universities, especially those in or near urban areas, must become more actively engaged in their communities:

What contemporary higher education requires is a qualitative leap forward, a leap that harnesses the university’s broad array of academic resources to the task of contributing to the revitalization of our rapidly changing urban environment... We think American higher education needs to reassess its moral purpose, institute massive changes, and return to the mission of using knowledge more directly to improve society’s condition. (1992, p. 29)

In other words, many argue that by remaining aloof from social problems and civic life, universities do a disservice to their immediate surroundings, society as a whole, and our democratic system.

The decision by a number of major universities to run their own elementary or high schools—all located in urban areas—appears to be rooted in just the sort of reassessment Harkavy and Puckett envision. As one founder of the USF Charter School observed, “We really feel that universities, particularly when we’re located at an urban site and next to a neighborhood that needs a lot of help, really have an obligation and an opportunity to do something for the community” (Barry, 1998). This is particularly the case when it comes to education. For example, Tim Knowles of the University of Chicago’s Center for School Improvement commented a few years ago, “I think there’s a recognition that urban education is one of the biggest domestic policy problems in our country and that it’s time to think about new ways higher education can be involved in addressing this incredible challenge” (Sturrock, 2005). Even at institutions like Wayne State and Penn—where the university has admitted that a certain amount of self-interest underlies its revitalization efforts—the school represents the recognition that the relationship between university and community can be neglected no longer, and indeed, that both university and community thrive when their destinies are seen as intertwined.

CONCLUSION

In many ways, the history of university-operated schools provides

important lessons for the universities discussed here that are committing themselves to the difficult task of creating high-achieving urban public schools. After all, like the earlier laboratory schools, these newer schools are rooted, for the most part, in an interest in developing and testing new approaches and modeling best practices. As Alvarez and Mehan’s argument—that Preuss’ experience offers “existence proof” that detracking can be done—makes clear, these schools are attempting to show that it is possible to educate significant numbers of low-income students to high levels (Alvarez and Mehan, 2006). This history can remind them to take seriously the need for a focused mission and not to ignore concerns about creating such an optimal environment that effective strategies cannot be transferred to other schools. At the same time, the idea that a university can do a better job running an urban school than existing school systems is new enough that it is still untested.

The dean of Stanford’s School of Education recently observed that her school’s decision to operate a network of charter schools was not an easy one to make: “Running schools in an urban community is a very difficult task for anyone. And you’re making the university vulnerable in that there’s no guarantee of success.... It’s not for the faint of heart” (quoted in Schachter, 2010). Stanford’s willingness to take that risk may well be a promising sign both of the recommitment of universities to their communities and of a new sort of investment in urban education. It also represents fertile ground for future research. First, of course, it will be important to determine the extent to which universities like Stanford succeed—with success measured in a variety of ways—in their tasks. Research could also usefully explore the ways in which the organizational culture of a university-run school differs from that of traditional public schools and the consequences of these differences. Third, research could helpfully document what forms of additional resources or interventions are particularly effective. Fourth, research could examine how these schools

deal with the challenges, discussed here, that faced earlier university-run schools. As scholars and practitioners explore this new phenomenon, it will be important to remember that such schools are but the latest episode in a long, rich, and complicated history.

Maia Cucchiara received her joint Ph.D. in Education and Sociology from the University of Pennsylvania in 2007. Her research focuses on urban education, urban revitalization, and school-community relations. Previous publications include (with Erin Horvat) "Perils and promises: Middle-class parental involvement in urban school" which appeared in the *American Educational Research Journal* in 2009.

ENDNOTES

¹This article focuses only on schools founded and operated by universities and does not address the many other sorts of relationships universities may have with public schools.

²See, for example, Barry, 1998; Saffron, 2000; "Penn's Pal," 1998; Moore, 1999; Snyder, 2001; Smith, 1999; Sturrock, 2005; Rossi, 2004.

³Thus, the school continues to serve a privileged population, including President Obama's two daughters, who attended the school before the family's move to Washington, DC.

⁴See, for example, the National Association for Laboratory Schools, <http://www.coe.iup.edu/nals/schools.html>.

⁵Because they were among the pioneers in this movement and opened in the 1990s, the University of California, San Diego's Preuss School and Wayne State University's University Charter School, have been the subject of some research. See Alvarez and Mehan (2005) and Denis, Colombo, and Saliwosky (1996).

⁶Unless otherwise indicated, all information about The School at Columbia University was obtained from its website: <http://www.theschool.columbia.edu>.

⁷Unless otherwise indicated, all information about University Public School was obtained from the school's website: <http://www.ups.wayne.edu/>.

⁸Unless otherwise indicated, all information about the USF Charter School was obtained from the school's website: http://ari.coedu.usf.edu/ARIWeb/usf_charter_school.htm#Mission.

⁹Unless otherwise indicated, all information here is from the NKO website: <http://charter.uchicago.edu/Information/> and the University of Chicago site: <http://www.uchicago.edu/docs/comm-outreach/programs/charter-school.html>.

¹⁰Unless otherwise indicated, all information about the Preuss School was obtained from the school's website: <http://preuss.ucsd.edu/>.

¹¹See, for example, Osguthorpe, et al., 1995.

REFERENCES

- Alvarez, D. and Mehan, H. (2006). Whole-school detracking: A strategy for equity and excellence. *Theory into Practice*, 45(1): 82-9.
- Barry, G. (1998, June 18). University to open groundbreaking charter school. *The Oracle Online*.

- Basinger, J. (1999, October 29). Colleges experiment with charter schools. *The Chronicle of Higher Education*.
- Benson, L., Harkavy, I., Puckett, J. (2007). *Dewey's dream: Universities and democracies in an age of education reform*. Philadelphia, PA: Temple University Press.
- Bernstein-Wax, J. (2010, April 23). K-4 classes at East Palo Alto charter school suspended. *Silicon Valley Mercury News*.
- Bustos, V.J. (1998, January 29). U of C charts a new course in public education. *The University of Chicago Weekly News*.
- Campus Compact (1999). *The Wingspread Declaration on Renewing the Civic Mission of the American Research University*. Providence, RI: Campus Compact.
- Campus Compact (2007). *Presidents' Declaration on the Civic Responsibility of Higher Education*. Providence, RI: Campus Compact.
- Center for Research on Education Outcomes (2009). *Multiple choice: Charter school performance in 16 states*. Stanford, CA: Stanford University.
- Cremin, L.A. (1962). *The transformation of the school: Progressivism in American education*. New York: Alfred A. Knopf.
- De Lima, A. & the high school staff. (1941). *Democracy's high school: The story of living and learning in the Lincoln School of Teachers College*. New York: Teachers College Press.
- Denis, J., Colombo, M., and Sawilosky, S. (1996). *Lessons in School Reform: An Evaluation of a University-Operated Charter Middle School*. Detroit, MI: Wayne State University.
- Deopere, J. (1997, November 19). Curriculum focuses on children. *Oracle*.
- Dewey, J., & Dewey, E. (1915). *Schools of tomorrow*. New York: E.P. Dutton & Co.
- Dewey, J. (1900). *School and society & The child and the curriculum*. Chicago: University of Chicago Press.
- Dubilet, Alex (4/6/04). Alexander School Adds Stability to Neighborhood: Public School Plays Role in Increasing U. City Property Values. *Daily Pennsylvanian*.
- Eubank, L.A. (1931). *The organization and administration of laboratory schools in state teachers colleges*. Kirksville, MO: Northeast Missouri State Teachers College.
- Good, H.G. & Teller, J.D. (1973). *A history of education in America*. New York: Macmillan.
- Goodlad, J. (1995). Foreword. In Osguthorpe, et al., (Eds.). *Partner schools: Centers for educational renewal*. San Francisco: Jossey Bass.
- Grossman, K.N. (2006, July 21). Doubts emerge in school experiment. *Chicago Sun Times*.
- Harkavy, I. & Puckett, J. (1992). Universities and the inner cities. *Planning for Higher Education*, 20 (Summer), 27-33.
- Hunkins, F.P., Wiseman, D.L., & Williams, R.C. (1995). Supporting collaborative inquiry. In R. T. Osguthorpe, R. C. Harris, M. F. Harris, & S. Black (Eds.). *Partner schools: Centers for educational renewal*. San Francisco: Jossey Bass.
- Jackson, P.W. (1990). Introduction. In J. Dewey, *School and society & The child and the curriculum*. Chicago: University of Chicago Press.
- Jarman, A.A. (1932). *The administration of laboratory schools: A study of laboratory schools connected with departments, schools and colleges of education in the United States*. Ann Arbor, MI: George Wahr.
- Katz, A. (2008, May 21). Catchment if you can: A new elementary school in University City has created a real estate frenzy. *Philadelphia Weekly*.
- King, A. R. (1984). Challenge to laboratory schools: Finding a niche. Retrieved August 11, 2001, from <http://www.coe.iup.edu/nals/findinga.html>.
- Lively, K. (1994, December 14). Some public colleges join the "charter school" movement. *The Chronicle of Higher Education*.
- Mayhew, K.C. & Edwards, A.C. (1936). *The Dewey school*. New York: Atherton Press.

- McConnaha, W. (n.d.) The laboratory school in the year 2000. Retrieved August 11, 2001, from <http://www.coe.iup.edu/nals/Wart.html>.
- Moore, A. (1999, November 9). Board approves funding to build innovative school. *The Philadelphia Inquirer*.
- Ohles, J. F. (1961). The laboratory school: Unresolved problem. *Journal of Teacher Education*, 12 (4), pp. 390-394.
- Osguthorpe, R.T., Harris, R.C., Harris, M.F. & Black, S. (Eds.). (1995). *Partner schools: Centers for educational renewal*. San Francisco: Jossey Bass.
- Ostrander, S. (2004). Democracy, civic participation, and the university: A comparative study of civic engagement on five campuses. *Nonprofit and Voluntary Sector Quarterly*, 33 (1): 74-93.
- Overview of laboratory schools and developmental research schools in the United States. (n.d.). Retrieved August 11, 2001, from <http://www.coe.iup.edu/nals.History.htm>.
- Penn's Pal. (1998, June 22). *The Philadelphia Inquirer*.
- Puckett, J. (n.d.). Rise and decline of the Speyer School. Manuscript: *The rise, decline, and revitalization of America's community schools, 1886-2000*. Excerpted from draft of chapter four: Progressivism gone awry: The Thorndikean hegemony and fragmentation of the schooling system.
- Rossi, R. (2004, September 3). Duncan touts university-run city schools. *The Chicago Sun-Times*.
- Saffron, I. (2000, January 31). A schoolhouse designed for joyful learning. *The Philadelphia Inquirer*
- Schachter, R. (2010, February). Universities go to school. *University Business*.
- Smith, E. (1999, November 12). On second look, new school at Penn deserves our support. *Philadelphia Daily News*.
- Snyder, S. (2001, August 31). Penn-funded city school hailed as "gold standard." *The Philadelphia Inquirer*.
- Sperduto, F.F. (1967). *A history of Rutgers Preparatory School*. Somerset, NJ: Rutgers Preparatory School.
- Stanford Challenge (n.d.). Stanford New Schools: East Palo Alto Academy—innovation in K-12 education. Stanford, CA: Stanford School of Education.
- Stone, E. (1992). *The Hunter College Campus Schools for the Gifted: The challenge of equity and excellence*.
- Sturrock, C. (2005, October 30). EPAHS featured as successful college prep school. *San Francisco Chronicle*.
- Tampa Tribune* (2008, August 1). USF charter school doomed by poor planning and blind oversight.
- Tanner, L.L. (1997). *Dewey's laboratory school: Lessons for today*. New York: Teachers College Press.
- Van Til, W. (n.d.). Laboratory schools and the national reports. Retrieved August 11, 2001, from <http://www.coe.iup.edu/nals/vantil.html>.
- Wen-Ju, S. (n.d.). Early beginnings of laboratory schools. Retrieved August 11, 2001, from <http://www.coe.iup.edu/nals/early.html>.
- Wilson, R. (2000, June 29). Columbia University to build apartment-school complex to draw professors with families. *Chronicle of Higher Education*.
- Wilson, R. (2000, August 11). Columbia expands into educating children as perk for its parent-professors. *Chronicle of Higher Education*
- Zimmer, R., Blanc, S., Gill, B., and Christman, J. (2008). Evaluating the performance of Philadelphia's charter schools. Philadelphia, PA: Research for Action.