The Gary Plan and Technology Education: What Might Have Been?

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This story actually started about 100 years ago and continues today. The cast of characters remains essentially the same, with corporate interests, government, educationalists, parents, and students being involved in ideological debate about education reform. Hope, fear, coercion, intimidation, and promises of a panacea all play supporting roles—with challenges to the status quo and the questioning of tradition remaining common threads throughout this tale.

The Gary plan of "work-study-play" was the brainchild of William Wirt (1874-1938), though largely influenced by the philosophy of John Dewey (1859-1952). Introduced in 1907 to the schools of Gary, Indiana, by Superintendent of Schools Wirt, the Gary plan had organizational and curriculum features that fostered hands-on activities relating to occupations and daily life. It was considered progressive in nature, with an articulated and broad program being offered from primary through secondary grades. The increased notoriety of the plan's social and financial benefits led New York City to invite Wirt as a consultant to transform its overstretched schools. What followed were several acrimonious years of position papers, posturing, and propaganda by all sides, culminating in a swift end to the plan. The demise of the Gary plan in New York and then slowly in other locales throughout the nation that introduced it raises questions as to what might have been, especially as it accentuated manual arts and training, forerunners to today's technology education programs.

This article first presents the issues, actors, and events surrounding the Gary plan and associated reform efforts in New York City. The inclusion of manual arts and vocational education as a fundamental feature of the plan also described. On a macro level, the politics of American education is examined as to how other reform efforts have been influenced by various factions. Finally, efforts to improve and change technology education through the recent *Standards for Technological Literacy* (International Technology Education Association [ITEA], 2000) are examined as to their potential for success, based on the outcomes and lessons learned from the past.

New York City at the turn of the 20th century was a growing and dynamic place, full of economic and industrial energy, as well as an influx of new immigrants. According to Bonner (1978), during the first decade, over 70% of the students were classified as foreign-born, with Russian Jews, Germans, and Italians comprising two thirds of the school population. The total school population was also increasing around 5% each year, placing great pressure on the city to complete new schools. Despite being considered "one of the marvels of the world of education" (S. Cohen, 1968, p. 96), the schools were not without problems.

Dominated by Tammany Hall, the political machine of the Democratic Party, the city was noted for corruption and poor management. As the Fusion candidate, John Purroy Mitchel was elected mayor in 1913 and brought a "progressive passion for business-like efficiency" (Mohl, 1972, p. 41) to city government. Mitchel was also sympathetic to reform and progressive efforts in education, which soon became the focus of his administration.

Before Mitchel's election as mayor, Alice Barrows (later Fernandez) was heading up the *Vocational Guidance Survey* under the Public Education Association (PEA) of New York City. As a private organization promoting progressive educational reform, PEA often advised the Board of Education on matters (S. Cohen, 1964). Barrows studied under Dewey at Columbia University and like Wirt, was greatly influenced by Dewey's philosophy. One outcome of her review of occupations and the vocational training being offered in schools was the recommendation that all children between the ages of 14 and 16 should receive broad experiences in pre-vocational (industrial) education, so as to meet the "practical demands of industry, be consistent with democratic ideals, and be financially practical for New York City" (Barrows, 1914, p. 230). Barrows also recommended "to make an experiment" for pre-vocational training in elementary schools; and being familiar with innovative approaches used elsewhere, suggested that "it would be most profitable and practical if it were carried out along the lines developed in Gary, Indiana" (p. 230).

William Wirt's "Gary plan" was receiving national attention. Founded in 1906 by Elbert H. Gary, the chairman of United States Steel, the new industrial city of Gary, Indiana, hired Wirt as superintendent, where he quickly developed his innovative school system. Also known as the "work-study-play" or "platoon" system, the Gary plan divided school populations into two groups, so that while one group was receiving the three Rs by specialized teachers, the other studied in specifically equipped facilities such as art, gym, and shop (Rich, 1992). Wirt's program also adopted Dewey's idea of a community within the school, so that in an ideal situation, both elementary and secondary students would be housed in the same school in order to learn from each other. According to Wirt (1937/1995), "the school is a playground, garden, work shop, social center, library, and traditional school combined in one plant and under the same management" (p. 23).

Wirt was also a firm believer in manual arts and training, with industrial school shops situated in each school, but often with the added purpose of allowing students to actually build and repair items for the school. In this way, students would participate "in a real industrial business in an environment similar to the old-time industrial home and community" (Wirt, 1937/1995, p. 32). Students in upper grades would be expected in woodworking shops to perhaps build desks, chairs, bookcases, and cabinets. In the printshops, students would handle all the school's printing needs. Painting, electrical, and plumbing needs were also done by students, but under the supervision of teacher-artisans (R. Cohen & Mohl, 1979). As for girls in the program, they were generally not permitted to do work that was beyond their strength or ability, "but with these limitations assumed, a girl may learn cabinet making, printing, electric wiring and other processes" (Dorr, 1915).

The Gary plan also included the absorption of industrial education into the regular school curriculum, which included elementary school-aged children. With the shops to be distributed throughout the building, it gave children an opportunity to become familiar with them by seeing older children at work. As Rheta Childe Dorr (1915), a social reformer, described in euphoric terms, "curiosity is soon aroused, and it is common to see the little ones with their noses flattened against the glass, peering intently at a carpentry or printing class at work." Children would also be allowed into the shops at regularly scheduled times to help the older students. As Dorr continued, "the dread rule of silence has no part in the Gary system. The little boy asks a thousand questions of the older worker . . . thus helping himself to learn."

Reflecting Dewey's "learning by doing" philosophy, Alice Barrows (1915) explained that activities for an elementary grade student might be to help "the seventh grade boys in the foundry moulding the sand for the casting, learning the names of the tools and taking in with all of his eyes how the castings are made." In an integrated and democratic manner, the upper grade students would also help in the education of the younger students. Table 1 shows a typical fourth grade student's day according to Barrows.

Table 1: Fourth Grade Student Schedule Under Gary Plan

Time	Activity
8:15-9:15	Reading, Writing, Arithmetic. A formal study and recitation period in a regular classroom.
9:15-10:15	Shop work (for three months, followed by drawing, science).
10:15-11:15	History and Geography. Another formal recitation period.
11:15-12:15	Lunch—cooked and served by girls in the cooking class.
12:15-1:15	Reading, Writing, Arithmetic. Another formal study and recitation.
1:15-2:15	Reading, Writing, Arithmetic—Or may substitute for the first three months, music, second three months mechanical drawing, etc.
2:15-3:15	Play—most of this hour is given to free play, although suggested and guided by a playground teacher.
3:15-4:15	Auditorium—fifteen minutes of singing, led by the singing teacher. "The rest of the time children from different classes give in dynamic form some of the things they have been learning in their classrooms." For example, students in the foundry class can tell fourth grade students about a casting or about the different parts of an automobile by the machine classes.

With advocates like Mitchel, Barrows, and Dorr supporting Wirt's program, the plan was introduced in 1914 into two elementary public schools (P.S.)—P.S. 89 in Brooklyn and P.S. 45 in the Bronx—as a test before it was to be expanded. To convert the schools, they first needed to be extended with five-floor additions expected to cost approximately $150,000 ("Fitting School," 1915). Provision was to be made for a foundry in the basement with a cupola. An office for the instructor was also to be included, "in which can be maintained experimental models, drawings, etc." Tool rooms and a room for clay modeling were to be placed adjacent to the foundry. With about 4,000 square feet of additional space, it was to be subdivided into other shops such as woodworking, mechanical drawing, and electricity. The remaining floors were to be used for the homemaking model apartment, science labs, and additional classrooms.

For Mayor Mitchel and his Fusion party's progressive enthusiasm for efficiency, the plan was viewed as having enormous economic benefits, as it could reduce the physical overcrowding of schools and demand for new buildings. This was important, given the serious budget problems the city was facing. For social progressives like Barrows and Dorr, the plan provided a natural environment in which children learned by doing. "Barrows and her friends recognized the technological efficiency of the new school plan, but for them the more efficient school had broader and more humanistic purposes—more freedom, more opportunity, more educational enrichment." "Technology, in other words, was accepted as a given, but it was to be used for humanistic, rather than impersonal business ends" (R. Cohen & Mohl, 1979, p. 64).

However, as this story was unfolding, there were other individuals and groups that were about to voice their opinions about the Gary plan. With the plan gaining momentum to expand to other schools, the strength and resolve of the opposition's opinions and actions also increased. Bonner (1978) described the situation at the time: "For critics, the Gary plan was an issue; for advocates, the Gary plan was a cause. While the former took illogical and even misleading positions in the Gary debates, the latter occupied a high-minded and hamstrung political stance" (p. 154).

One leader of the rising criticism was William Ettinger, the associate superintendent of schools. He initially viewed the plan with enthusiasm after an early fact-finding trip to Gary, Indiana, with the newly elected mayor, but he soon became disillusioned with it as he felt the curriculum changes and costs for equipment were too great (R. Cohen & Mohl, 1979). His "Ettinger plan" for manual and vocational education would have one group of secondary students in school for a week, while the other students would be assigned, in pairs, to real work experiences in a business. At that site, they would receive limited training by the company, vocational counseling, and even a small salary. His plan was also being introduced to several schools and was seen as an alternative (competitor) to the Gary plan for secondary school students. Ettinger was also skeptical of the relative value and limited vocational experiences elementary school students would actually receive.

The Board of Education was also an important player in this debate. Thomas Churchill received his appointment as president of the board from the past mayor in 1913, and like Ettinger, became disillusioned with the plan, but for different reasons (Bonner, 1978). Churchill wanted the board to have more power and not to have superintendents implement policy. However, most progressives wanted "experts" running the schools. As an economic progressive, Mayor Mitchel proposed reducing the number of board members from 46 to 7 for greater oversight and efficiency; but when this initially failed due to the state not backing it, he resorted to other means to secure his agenda. What Mitchel did was to have the Board of Estimate that controlled all public funds deny any increased funding for schools in 1916, thus making the Gary plan the only other logical alternative to the expected overcrowded conditions. Hostility between Churchill and Mitchel then escalated, with Churchill believing the plan was not adequately evaluated and that his board would lose authority and control. Eventually, Mayor Mitchel prevailed, with a smaller board bill passing in the state legislature and a new Mitchel-supporter, William Wilcox, elected as board president in 1916.

Teachers also had their own professional and personal opinion of the plan. For example, the New York City Teacher's Association urged a "go-slow" attitude on implementation, as they

were not convinced of the benefits (Bonner, 1978, p. 177). For more selfish reasons, teachers generally objected to the one more hour of work the plan required each day, even though the additional hour was to be used for lesson preparation, not teaching. Principals were also generally not in favor of the plan. While Alice Ritter and Angelo Patri, principals of "Garyized" P.S. 89 and P.S. 45, respectively, would often speak at school parent-teacher meetings about the positive aspects of the plan, there regularly would also be in attendance principals such as William Grady, an Ettinger school supporter, presenting views for the opposition (Metcalfe, 1915a).

Even respected educators such as David Snedden and John Dewey lent their names to the plan. According to Snedden ("Tell of Value," 1917), the two hours a day shop experiences for boys and girls under the age of 11 was "not to make him an expert in any vocation." The plan's "industrial arts . . . afforded the children the opportunity to do things with their hands and by applying their minds to their work meant a growth in experience." Dewey also described the plan in positive terms, even praising the Gary plan in his 1915 book *Schools of To-morrow* (Dewey & Dewey, 1962), despite the fact that he never visited Gary, Indiana. As a professor at Columbia University, he also was a supporter of the plan in New York City. Responding to concerns about the lack of evaluation before it was to be expanded to more schools, Dewey stated, "In my opinion, the work-study-play plan as developed by Mr. Wirt does not need any further evaluation before it is extended to other schools in the city. On the contrary, I am already convinced that its value is established" ("Professor Dewey of Columbia," 1915).

Stoking the fires of this public debate was the members of the press, who made the controversy over the plan daily reading matter. The progressive intellectual Randloph S. Bourne wrote a series of pieces for *The New Republic*, later compiled into a book entitled The Gary Schools (Bourne, 1916). Newspapers would also regularly take positions in the debate. For example, Rheta Childe Dorr would have a daily school page promoting the plan in the *New York Daily Mail*, no doubt due to the new owner of the *Mail* being from Indiana and publishing stories solidly in favor of the plan (i.e., "Visiting Clubwomen Impressed" 1916). *The New York Times* was also publishing stories touting the Gary plan (i.e., "The New School Plans," 1916; Wm. G. Willcox Urges," 1915). Perhaps most influential was the voice of Alice Barrows, now hired as William Wirt's personal secretary. As secretary, she skillfully presented Wirt's agenda and her own progressive philosophy in meetings and to the press. Her twice-weekly *New York Tribune* articles promoting the Gary plan assured *Tribune* readers in the banner header that they "will find in this department a clear and authoritative account of the Wirt school system" (i.e., Barrows, 1915).

On the opposition's side, certainly no individual was more influential than Tristam Walker Metcalfe, who had a daily education column in the *New York Globe*. His earlier public backing of Churchill to head the Board of Education, attacks on the Board of Estimate for its stinginess, and rebuttals to any statement made in defense of the plan were unending. Examples of his position can be seen in the headlines: "Emphasis Put Upon Saving in Buildings and Teachers" (Metcalfe, 1915b), "Less Play Space and Much Less Shop Equipment Provided" (Metcalfe, 1915c), and "Estimate Board is Forcing Adoption of Gary School Plan" (Metcalfe, 1916b).

Trade unions were also against the plan. Some saw it a being a plan devised by Elbert H. Gary or John D. Rockefeller. Regarding the U.S. Steel connection, the city of Gary, Indiana, was specifically built to house the workers, with the schools built on donated land, and the superintendent's work supported by officers of the company. It was thus not surprising unions felt "the entire system was designed to train the children of steel workers to be efficient cogs in the industrial machine" (Gilroy, 1917). R. Cohen and Mohl (1979) also described how unions perceived the Gary plan for New York schools as being "designed to stifle mobility and turn out 'wage slaves' for American capitalism" (p. 46). Adding credence to this perception was that two of Mitchel's appointees to the Board of Education were also associated with the Rockefeller-financed and pro-Gary plan General Education Board—a fact regularly brought up in union meetings about the plan (Bonner, 1978).

The End of the Gary Experiment in New York

For nearly four years, the public debate about the Gary plan raged. On one side were the efficiency progressives such as Mayor Mitchel and the Board of Estimate; social progressives

such as Alice Barrows, Rheta Childe Dorr, Randolph S. Bourne, and John Dewey; as well as liberal newspapers such as the *Tribune* and *Times*. On the other side were interests that may be considered more self-serving, with William Ettinger, the associate superintendent of schools; Thomas Churchill, president of the Board of Education, Tristam Walker Metcalfe, writing for the *Globe*; teachers; and unions such as the New York City Teacher's Association. However, it was to be the organization and voice of the parents and students that put an abrupt end to the plan.

The main parent's group leading the charge in favor of the Gary plan was called the Gary School League, organized in 1916. An outgrowth of the Women's Municipal League, the Gary School League consisted of reform-minded women elites, among whom Mrs. John Dewey was the most noted from academia. This group of women presented their views at school meetings, were available for interviews in newspapers, and used automobiles to take visitors to Garyized schools. By the late summer of 1917, the league even sponsored the showing of a motion picture for the public to view what a typical day in a Gary school would be like (Bonner, 1978).

Another group formed in September 1917 to promote the plan was called the Committee on Public Education. While the *Tribune* considered the committee to be "non-partisan" and formed "for the purpose of informing the voters about the constructive work carried on in the schools by the city government during the last four years" ("Voters to Learn," 1917), the Globe labeled it as part of Mayor Mitchel's Fusion campaign committee for his upcoming re-election in November of 1917 ("Tell of Value," 1917). The committee was headed by Michael Friedsam, president of B. Altman & Company, but also included academics such as John Dewey and David Snedden. In their committee statement issued on the subject, they mentioned in the very first paragraph the upcoming election and the other candidates' objective to "create passion and obscure facts" ("Voters to Learn," 1917). They further stressed that "under modern industrial conditions which exist in the most intense form in the world and in New York City, opportunity for recreation and the experience, skill and character development that come from the use of tools . . . must be met by the schools."

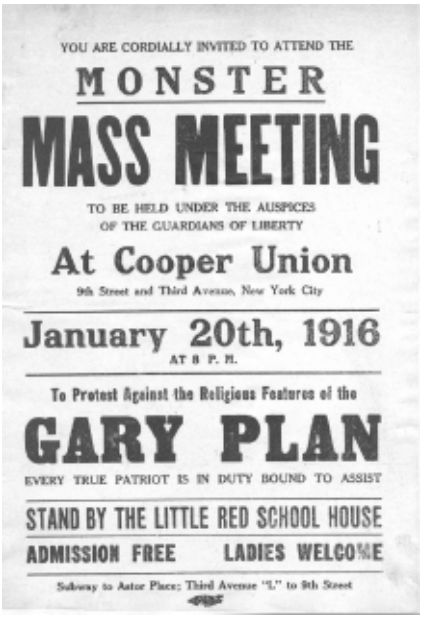
Opposition groups were also being formed. One such group was the Mothers' Anti-Gary League formed by mothers of students attending Garyized P.S. 89 in Brooklyn. Through a petition submitted to the Board of Education and signed by over 400 mothers, objections were raised concerning a number of issues including the neglect of academic work due to the diversity of interests ("Petition Signed," 1916). As noted by R. Cohen and Mohl (1979), many of the other "anti-Gary leagues" that were being formed at schools were actually pushed by Tammany politicians and school principals.

Testimonies by parents were also heard at public meetings to present both sides of the Gary debate. These meetings were often heated and very emotional. At one large public hearing held at the Board of Education, each speaker was to be limited to five minutes. However, the lack of control the president was able to exhibit at this meeting was later explained as "limiting a woman with an hour's worth of conversation to five minutes is sure to enact a certain amount of misdirected energy" ("Two Girl Graduates," 1916). With opposition groups such as Federation of Parent's Association, Mother's Council of the City of New York, School Welfare Association, Bronx Anti-Gary League, Conference of Organized Labor on Industrial Education, and parent's associations from over 10 schools present, the three groups in favor of the plan, including the Gary School League, were vastly outnumbered.

Concerns were also being raised by groups about Wirt's proposal to have release-time religious instruction as part of the plan. With this feature, students were to be released two times per week to attend instruction at their own local church or synagogue. Along with Constitutional issues about the separation of church and state, there were fears students would be pressured by their teachers to attend a specific church, or that they would be ostracized by fellow students for their particular beliefs. One such meeting on this issue was sponsored by the Guardians of Liberty, an anti-Gary group (see Figure 1).

Headlines about the meeting the next day in the Globe stated "Liberty Guardians Accuse Catholics" (1916), while the pro-Gary Tribune's was "Gary Meeting Ends in Disorder" (1916). The Tribune described how "there was considerable confusion when several of the speakers made attacks upon the Catholic Church. . . .

Figure 1. Poster for anti-Gary meeting



It looked for a while as though fists fights would result." One speaker at the rally stated, "I accuse some of the teachers in the public schools of using the schools for the purpose of which they were not intended—that of attempting to make this a Catholic nation."

Despite the propaganda and efforts from both sides, it was the students who actually settled the debate in a very quick manner in the autumn of 1917. With municipal elections scheduled in November, and only 30 out of 680 schools Garyized, the opposition voices became even louder (R. Cohen & and Mohl, 1979). Mayor Mitchel was running again as the Fusion candidate, John F. Hylan as the Tammany candidate, and Morris Hillquit from the Socialist party. Hyland was squarely against the plan, while Hillquit was more neutral and even questioned why many of the best features of the plan were never implemented. Against this heated backdrop, the Gary plan remained at the center of political controversy, but it was the sudden and violent actions of the students that determined the fate of the Gary plan in New York.

The headline in the *Globe* on Tuesday the 16th of October 1917 was "1,000 Pupils Riot Against Gary System." The morning before, a large group of boys refused to go into P.S. 171, a school where the Gary plan was just introduced. Police quickly "rounded up the malcontents and dragooned them into the building." When school ended, the actual riot started, with windows broken and students arrested. So widespread was this anger that even "fathers and mothers encouraged the event" and "girls were taking a leading part."

The next day at P.S. 147, what started out as a meeting for parents and students to explain the Gary plan, also turned into a "riotous anti-Gary demonstration" after the replies to questions were not satisfactory "concerning the practical operation of the plan and the Rockefeller influence upon the public school system" ("Trouble at Gary Meeting," 1917). P.S. 171 problems also continued that day and spread to several other schools. The press immediately placed blame on the Socialists, as signs were waved supporting Hillquit, as well as the chanting of slogans against Mayor Mitchel ("1,000 School Children Strike," 1917). Police estimated the increased numbers from the participating schools were over 4,000.

By the end of the week, the strikes escalated, with an estimated 5,000 students out in the Bronx (Bonner, 1978). Police were injured from stones thrown, resulting in several students being arrested. That next Monday, October 22, things continued to get worse. Several schools in Brooklyn and the east side of Manhattan had demonstrations, with an estimated 10,000 taking part ("10,000 Pupils in Brooklyn Out," 1917). Even at an elementary school in Brooklyn, children smashed windows and were joined by their mothers with banners inscribed "Down with the Gary System" and "Down with Mitchel." Tuesday the 23rd was considerably quieter, with only a few minor incidents at a few schools. However, by that time, it was becoming more evident that Tammany members and their candidate, and not the Socialists, may have had something to do with the events.

While it may never be known whether students acted on their own in order to return to a shorter school day, teachers gave subtle encouragement to their movement, parents desired to protect their children, or political "operatives" instigated the strikes, the riots caused serious damage to the candidacy of John Purroy Mitchel. In two weeks time, he lost the election in a Tammany landslide, with Hylan receiving twice as many votes. Soon after his inauguration, Hylan began to pressure the Board of Education to remove any superintendents who favored the plan in order to expedite the elimination of the Gary plan from schools

("Elimination of Gary Plan," 1918). Recognizing William Ettinger's reputation as an outspoken opponent to the plan, Mayor Hylan swore Ettinger in as the new superintendent that May ("Supt. Ettinger," 1918).

Obstacles to School Reform

Years later, reflecting on the Gary plan, William Wirt (1937/1995) stated, "One must not only recognize that opposition is to be expected . . . as a rule progress is made because of opposition. Sometimes one must recognize that the value of a new proposal can be estimated by the extent of the opposition" (p. 112). As reflected in the example of the Gary plan in New York City, it was very difficult to initiate and sustain change, with teachers in particular very resistant. However, as witnessed by the strength of resolve against it, perhaps there were features of the Gary plan that were of great *potential* value.

Was the Gary plan so flawed and/or had few features that were acceptable that it would never have been accepted? Weischadle and Weischadle (1990) identified the elements of time, trust, team, and training as necessary elements in order to have a chance at successful change. It appears that with the attempted implementation of the Gary plan, little if any of these elements were present. Initially placing the plan in two schools without adequate training for staff, not having the schools fully equipped, then rushing to expand the program to other schools without demonstrating its proven value led to a huge lack of trust. Certainly, attempts were made by the progressives to help educate and convince the teachers and prepare the public, as witnessed by their many public debate appearances and writings for the press. But eventually, these were not enough.

The debate over the Gary plan can also be looked at as a conflict over knowledge and power (Spring, 2002). One arena includes those seeking to have their ideas placed in schools, while another arena wants schools to teach children particular values and ideas. While it is possible these two can overlap, they may also be a source of contention. The actors in New York's different arenas contained politicians, administrative politicians, school boards, progressives, labor unions, corporate interests, groups/organizations, media, the public, parents, and students. Perhaps it was the public's view that schools should be traditional. There was a perception that manual training was part of a "Rockefeller" agenda. Many did not accept the religious instruction feature of the plan. These elements coupled with the frustrations felt by students led to almost insurmountable problems.

As for the teachers' position, Germinario and Cram (1998) described how resistance to change can manifest itself in both subtle and not so subtle ways. Illusions of support, manipulative behaviors, or outright refusal to cooperate are resistant behaviors exhibited in schools. The teachers' reaction to the Gary plan in the early 1900s contained all of these features.

Resistance to educational reform, the agenda of competing interests, and inherent contradictions have occurred in many other educational movements since the Gary plan was introduced in the early 1900s. One example would be reform efforts in the 1960s and 1970s to both increase parental influence on schooling and to reduce racial segregation (Katz, 1987). To implement one policy would require radical decentralization, while the other would lead to larger and more heterogeneous schools. The level of federal initiatives and control over education policy is another area of contention and contradiction. For example, in the 1980s, Republican platforms (Republican Party Platform, 1984) promised fewer federal regulations and less intrusion into local governments, yet initiatives such as the *New American Schools Development Corporation* and *Goals 2000* initiated by President George H. W. Bush seemed to contradict this position. The more-recent *No Child Left Behind Act* developed by the administration of President George W. Bush also reflects, for many, contradictions and fosters a lack of acceptance. The historical role of local schools, the level of funding to adequately support requirements, and the degree by which curriculum and pedagogy change in order to match goals and evaluation pressures are issues raised by this piece of legislature.

Reform efforts in technology education have also had obstacles and contradictions. Since major endeavors in the mid-1980s to transform what had traditionally been accepted and practiced (i.e., industrial arts), there has been a lack of acceptance by teachers (Bussey, Dormody, & VanLeeuwen, 2000; Rodgers & Mahler, 1994), a lack of public understanding (Pearson & Young, 2002), and a lack of understanding by educators (Gray & Daugherty, 2004). Referring to Weischadle and

Weischadle's (1990) elements of time, trust, team, and training as necessary for having successful change, perhaps the limited inroads and health of the technology education profession (Sanders, 2001; Wicklein, 2004) point out deficiencies in meeting some of these conditions.

The recent *Standards for Technological Literacy* (ITEA, 2000) may also face much the same fate as past reform efforts. Will it parallel the Gary plan as a short-lived effort forced into a society with divergent political, administrative, corporate, public, and professional interests that are liable to change, or will it develop into a movement that will transcend differences and stand the test of time? In essence, are the *Standards* a "fad," exactly the same concerns raised at the time about the Gary plan (Metcalfe, 1916a;Vance, 1916)?

Merrill and Comerford (2004) stated that "the use of standards-based teaching and learning has been gaining significant attention . . . [and that] state boards of education are holding school districts accountable" (p. 8). They also confidently maintained that "standards-based instruction is not an educational fad" (p. 8). Despite this optimistic assessment, Wicklein (2004) identified a substantial lack of curriculum consensus about the content of technology education by teachers and university professors. This may suggest that the *Standards*, although presented to the profession for several years now, may still not be universally accepted or implemented. Their genuine acceptance by teachers and the public, as well as how students accept them, will ultimately determine their impact. Time will tell if the *Standards* become a footnote in the field of technology education, just like the Gary plan.

Conclusion

The Gary plan had the potential to be a great influence on technology education. Based on social progressive philosophy that influenced early manual and industrial arts (Petrina & Volk, 1995), it featured many aspects that would be appreciated in today's technology education programs. For example, the Gary plan had all secondary school students involved in technical education, there was clear articulation between elementary and secondary programs, and the school had facilities for the entire school population to use. It also embodied education ideals that centered learning on social conditions and needs through experiential, hands-on activities.

While the Gary plan did not last long, some features of the plan remain in many of today's schools, such as departmentalized teaching in upper elementary grades and an end-of-day "activity period" for students to attend specialized areas in chorus, band, or even technology labs. Had the Gary plan in New York City and elsewhere been successful, instead of technology education programs remaining largely marginalized, they would have remained much more the focal point in schools—and should this have happened, no doubt the health, status, and accomplishments of technology education would be a different story today.

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