The Gary Plan: A Model for Today's Education?

Kevin J. Kaluf
George E. Rogers
Purdue University

The term at the top of recent years' educational and legislative discussions at all levels is "education reform" (U.S. Department of Education, 2009). National, state, and local governments are all trying to enact laws and regulations to make schools change to better serve their students (Sokol, 2011). Their goal is to teach students skills that will help make them more productive citizens and keep the country on top industrially and economically (U.S. Department of Education, 2010). Technology education classes are being deleted from school course offerings because of either financial limitations or their perception as non-essential (Starzyk, 2009). Legislatures, parents, teachers, and educational leaders are sharing their opinions with anyone who will listen about what they think is wrong, and what they think will fix all these perceived problems with K-12 education (Wyatt, 2011). News publications and public policy agencies are noting that students need to learn the skills to keep the nation competitive, students need more hands-on and problem-based learning for the world of tomorrow, and that funding issues are inhibiting what can be accomplished in the classroom (Asia Society, 2008; Martinez, 2011; Williams, 2011). Are these aforementioned issues new

concerns that are just now being discussed in our educational environment?

In reality, the above mentioned concerns, proposed fixes, and questions asked were being discussed in the early 1900's, where financial constraints and lack of skills being taught to students were major anxieties throughout the country as the United States entered the 20th Century. These concerns led to the creation and implementation of the Gary Plan of "work-study-play" by William Wirt in Gary, Indiana, in 1907 (Lipping, 2008). This plan led to an innovative way to implement and encourage the manual arts (a precursor to technology education) in K-12 education, and had students participating in hands-on activities that provided them with problem solving and career-related skills that could continue our nation's supremacy in that era. Today, the implementation of a few of the elements of the Gary Plan of study could not only alleviate some of the problems K-12 education is experiencing but could also greatly improve current technology education programs.

Wirt's Gary Plan

In 1907, Wirt became superintendent of schools in Gary, Indiana, a booming steel town located in northwest Indiana on Lake Michigan, and he immediately began implementing his educational reform plan on the local school system (Lipping, 2008). Wirt's philosophy, or the Gary Plan, was that the public schools should provide an oasis to instill the values of family, work, and productivity among urban students and produce an efficient, orderly society of solid, productive citizens (Cohen & Mohl, 1979). The core of the schools' organization in Gary centered upon the platoon, or work-study-play system. Wirt initiated new teacher hiring standards, designed the new school buildings that would accommodate his

groupings of students, lengthened the school day, and organized the schools according to his ideals. The Plan theoretically organized students into two groups, or platoons. During the morning, Platoon A students occupied the specialized academic classrooms (mathematics, science, English, history, etc.), while Platoon B students were in the auditorium, shops, gardens, swimming pools, gym, or playground. They switched facilities during the afternoon. The students were busy all day, every day, and through this system were supposed to develop their mental, social, cultural, and physical abilities (Rich, 1992).

Gary's elementary schools were a beehive of activity where children not only learned math, history, and science, but also tended gardens, fed and took care of animals, and acquired demonstrable skills through hands-on activities in the vocational shops (WirtAlumni.com, 2010). Wirt was a firm believer in manual arts, the forerunner to technology education. The inclusion of manual arts into the regular school day curriculum gave elementary students the opportunity to become familiar with the industrial shops and practices by observing older students at work. Many of the older students were in the school shops building desks or bookcases, repairing items, or doing all the school's printing needs. Girls were also expected to participate in these shop environments, doing what they could do according to their strengths and abilities.

The platoon system gained acceptance in Gary and received national attention during the early decades of the 20th Century. Despite a failure of acceptance in New York due to political reasons, Wirt's system continued to achieve popularity during the 1920s. In Gary, the schools grew rapidly to serve the growing population and enrollment. As the city grew, so did school buildings, staff, and funding with the higher demand for education in the city. Outside of Gary, over 200 cities in 41 states experimented with the platoon system, and in 1925, the

National Association for the Study of the Platoon or Work-Study-Play School Organization formed to publicize the advantages of the platoon system (Cohen & Mohl, 1979). Wirt not only received national recognition for his plan, but also gained worldwide recognition in Europe to Japan.

How Gary Plan Elements Could Help K-12 Education

In today's K-12 educational climate, something has to be done to alleviate some of the curricular and financial burdens that are plaguing school districts, teachers and students. Implementation of elements of the Gary Plan could help alleviate some of the issues schools face. Utilizing elements of the Gary Plan's work-study-play system will help schools and teachers better meet the needs of all students. Gifted learners are one type of student that the Gary Plan could focus on through differentiated active learning. A differentiated classroom is one in which a teacher provides different avenues to the content (what is taught), the process (activities through which students come to understand what is taught), and the products (how a student shows what he or she has learned) in response to the readiness levels, interests, and learning profiles of the full range of academic diversity in the class (Tomlinson, 1995). Through differentiated learning, students who are gifted and are usually "bored" with the traditional teaching will be given opportunities to work on different projects that will stimulate their learning. Gifted students at higher class levels can use their time to instruct younger students in projects and activities, and feel that they are putting their time to good use. Slower learners in this setting can be made to feel better about themselves and their abilities through the hands-on activities of a Gary Plan classroom. These slower learners, whether it is because of low self-esteem, reading, writing and math difficulties, or low –

English language skills, are given opportunities to succeed while problem solving and working collaboratively with others. These students would have other students as mentors, either older students or classmates, to lead them through the learning activities of the day, and if these are done correctly, the students can be led to success. Sometimes these small successes are what it takes to engage a student in the learning process in the classroom.

At the elementary level, students wouldn't have to be made experts in anything during the time of active learning, but getting up and learning through an active learning activity can possibly help students learn better in the traditional classroom setting (Bonwell, 1991). Developmentally appropriate elementary practice is "based on knowledge about how children develop and learn" (National Association for the Education of Young Children, 1996). According to the Southern Regional Education Board (1994), a developmentally appropriate elementary program emphasizes the following:

- Active, senses-based exploration of the environment.
- Self-directed, hands-on learning activities balanced with teacher-directed activities.
- A balance between individual and group activities.
- Regular and supportive interaction with teachers and peers.
- A balance between active movement and quiet activities.

These concepts are either very evident in the Gary Plan, or can be easily incorporated into elementary classrooms based on elements of the Gary Plan. Gifted students in the regular classrooms at the elementary level will be much more involved in their own learning through the project-based elements of the Gary Plan. Project based learning is an instructional approach built upon authentic learning activities that engage student interest and motivation. These activities are designed to

answer a question or solve a problem and generally reflect the types of learning and work people do in the everyday world outside the classroom (The Buck Institute, n.d.). This concept of teaching and learning is exactly what many feel is lacking in the way schools teach students today. During their time outside the traditional classroom, students can participate in their own learning through problem-based learning activities according to their own abilities, and acquire some elementary problem solving skills as a foundation that will help them as they continue their education.

How Gary Plan Elements Could Help Technology Education as A Discipline

The most exciting part of the Gary Plan for technology education is that it gives elementary students time every day to actively partake in hands-on, problem-based learning at a time when educational habits are being formed. Instead of waiting until they are older, elementary students can be exposed to many exciting technologies, and their parents can become more accepting of their need in knowing about these technologies in our ever changing world. Over the past decade, the *Standards for Technological Literacy: Content for the Study of Technology* (International Technology Education Association, 2000) and its subsequent updates and addenda have given technology education core standards for schools and teachers to strive to implement in their technology classrooms. Some would argue that with these *Standards*, finally technology education can begin to become more universally accepted by schools as an integral part of a student's total curriculum, and its teaching shouldn't be relegated to an afterthought or elective. Wicklein (2004) stated that there is a lack of agreement amongst teachers and university professors about what the curricula content of technology education should be in

schools, despite the availability of the *Standards*. Will the *Standards* become another educational fad? By implementing more of the hands-on learning elements of the Gary Plan at the younger ages through elementary technology education activities, students are exposed to these *Standards* very early, and schools districts, teachers and parents are more accepting of them as important aspects of a total student's early education. Elementary students today are becoming just as immersed throughout their day in technology as their older siblings, and, provided through elements of the Gary Plan, being given this time in an elementary student's schedule to infuse the use of the *Standards* will help with their acceptance in educational circles.

As financial budget cuts in education have become the norm, many school districts are eliminating their "elective" or "exploratory" courses in the high school and middle school levels, and replacing them with "core" subjects such as language skills, math, and science. Across the nation school boards facing financial troubles are reverting to include curriculum consisting of only what courses the state requires and/or tests (Starzyk, 2009). Another reason for these elective cuts is the low scores on state tests that only test these core subjects, and administrators feel that students need more time and exposure to the core classes to better these scores (Primeau, 2003). This elimination of courses such as technology education is being done to the extreme detriment to a student's overall education. Many young students will now not have the opportunity to explore interests or develop new skills that will help then in secondary school or university work. Primeau (2003) indicated that New York State United Teachers spokeswoman Denise Clapham noted,

> Middle school students - who are at a very important intellectual time, coinciding with the kid's greatest physical, hormonal, and emotional changes - should be

exposed to as much exciting, thought provoking challenges as they possibly can as well as the three R's.

As with growing acceptance of the *Standards* with administrators, teachers, and parents, implementing more of the hands-on learning elements of the Gary Plan at the younger ages can create a growing acceptance and agreement that technology education is a very important subject to be exposed to at an early age and that it should rank right up there with math and science as a core subject.

Conclusion

The Gary Plan, if it had been persevered and been expanded on in the 20th Century, had the potential to both change how younger students learn and be a very powerful and effective force on how technology education is perceived by education today. When implemented, the Gary Plan had all older students engaged in a form of technology education, schools better utilized all their facilities for student learning, and there was articulation between elementary and secondary programs. It was also ahead of its time with students actively engaged in hands-on, project-based learning. Infusing manageable elements of the Gary Plan today can help ease overcrowded schools, and can help schools meet the needs of all students through different levels of experiential activities. More set aside time in a school day to engage elementary students in technology education activities can raise the public awareness of the potential of technology education as a core discipline, which will hopefully lead to more schools valuing it and doing whatever it takes to salvage technology education courses when forces conspire to remove them as electives.

Authors

Kevin J. Kaluf is an engineering/technology education teacher at Kankakee Valley High School in Wheatfield, IN and a doctoral student in engineering/technology teacher education at Purdue University in West Lafayette, IN. He can be reached at kkaluf@purdue.edu . George E. Rogers is a professor of engineering/technology teacher education at Purdue University. He can be reached at rogersg@purdue.edu.