A catalyst for educational change: the role of career and technical education in Georgia’s statewide educational improvement efforts

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CEC was designed to meet the needs of a local community using a successful instructional or performance systems model previously used only in private industry and government environments (Harless, 1997). Referred to as “the model for technical educational reform in the state of Georgia” by the Georgia Governor in 2000, CEC’s initial eight (2000-2008) years appear to have lived up to expectations. CEC has garnered both statewide and national attention as a National Model High School in 2004 (International Center for Leadership in Education et al.) and currently serves as a model for statewide educational reform in Georgia.

The Central Educational Center is a product of multiple visions, desires, and hopes. The ideal vision is outlined in a book entitled “The Eden Conspiracy” (Harless, 1997). Other perspectives include a requirement from local business that basic skills of high school graduates need to be rapidly improved, the desire of a growing local school system to provide costly industry-standard career-technical education to all high school students, the vision of a regional technical college to “dual enroll” high school students and make technical college a viable post-secondary option, and the hopes of a Governor looking for a viable model to support his desire to reform education partly through a new infusion of technical education opportunities.

Our research examines this school from multiple perspectives to detail why and how it was formed, how it operates and has evolved, and how it serves as a model whose influence can now be seen in legislation, in school funding, and in districts across Georgia. It also identifies areas of educational research regarding the implementation of charter schools and career and technical education (i.e. career academies), that have not been fully explored.

Lessons from a century of educational reform

Contemporary educational reform efforts still largely derive their roots from the provocative 1983 National Commission on Excellence in Education’s report A Nation at Risk: the Imperative for Education Reform, which called for a national educational reform movement to meet our “tide of mediocrity.” In 1998, another panel of national educators was formed to review educational progress, and their findings were detailed in a document entitled A Nation Still at Risk which concluded that “a dual school system had been created” where the gap between good and bad schools had widened. Educational access to high quality education was labeled the next civil rights movement (A Nation Still at Risk, 1999).

Many reform efforts, although focusing on important, valid issues, had the tendency to suffer from “zones of wishful thinking” (Hill & Celio, 2003) where reform initiatives focused on singular problems that do not account for all of the complex variables needed to make and sustain real change. There has been a rallying cry by many that these multiple “waves” of reform represent “piecemeal” change and meaningful, widespread reform cannot occur unless systemic changes are made (Meier, 1998; Reigeluth, 1993; Betts, 1992; Hawley, et al, 1987). The call for holistic, systemic change has grown
more prevalent. Systems researchers urge that schools be viewed as complex social systems emphasizing that attempting to merely improve on the parts of a system will most likely not prove effective (Hawley, et al., 1987).

Joe Harless’s *The Eden Conspiracy* (1997) describes his vision for how systems and performance technology principles can benefit public education. *Eden* represents the systemic approach called for by many educational reformers and integrates this with the flexibility and autonomy provided by a growing educational reform initiative – charter schools. And, that “integration” is a significant difference. At CEC, chartering was the means to an end that included much innovation.

Charter schools have become a significant part of national educational reform. They can be closed if they are not successfully achieving stated charter objectives. Proponents argue, therefore, that charters are more accountable. Another component of charter accountability is parental choice (Loveless, 2002). Charter schools also are frequently lauded for serving as catalysts for district wide school improvement. They “compete” with other public schools for students while given considerable autonomy from state and federal regulations that govern other public schools.

The problem of unmotivated students continues to be a primary problem in general education. The role of motivation research and models such as the Ford’s (1992) motivational systems theory (MST) that attempt to bridge theory to application, provide potentially robust and useful frameworks and constructs from which to consider potential educational innovations and refinements. Considering and understanding student motivation can assist educators in delivering instruction and education in such a way that it is meaningful, relevant, and ultimately much more likely to facilitate meaningful learning and therefore usable and relevant to a larger number of students to the benefit of society as a whole.

A 2002 survey of the nation’s high school students strongly suggested low student motivation played a significant role. When students who had considered dropping out of school were asked why, 76 percent said *school was boring* and 42 percent said they were *not learning enough* – two responses that outpaced a long list of other possibilities by a substantial margin (Alliance for Excellent Education, 2003). A comprehensive 2006 study further supported these findings. Involving interviews and focus groups across 25 different US cities with young people from the ages of 16-24 who dropped out of high school, the study found that the primary reasons for dropping out of high school were *not being motivated or inspired to work hard* (69%), *classes were not interesting* (47%), *started high school poorly prepared* (45%), *missed too many days to catch up* (43%), and *spent time with friends not interested in school* (42%) (Bridgeland, Dilulio, & Morison, 2006).

High school dropouts reported a “gradual process of disengagement with school” that was a gradual, rather than sudden act, punctuated by poor attendance and relatively low parental involvement. Around 60 percent missed class often the year prior to dropping out and 38 percent mentioned “too much freedom” and “not enough rules” as contributing to simply skipping school to do other things. Only 59 percent of the parents were “involved” with students and their school work and 69 percent of those were involved only because of disciplinary reasons (Bridgeland, Dilulio, & Morison, 2006).

Career and Technical Education (CTE) has long been held by educators as a way to reach students disengaged with their coursework and school in general. This has led, unfortunately, to the problem of “dumping” where students became labeled and placed on a vocational track where they were assigned schools that specialized exclusively as vocational preparation centers. Despite this negative aspect
traditionally associated with vocational or career and technical education, over the years a diverse set of studies utilizing various methods and statistical analyses consistently found that enrollment in CTE courses still were value-added to the high school experience, especially as it related to student retention (2000-2007" from NRCCTE; Castellan, Stone, & Stringfiled, et al., 2007. Plank,S. (2001); Plank, DeLuca, & Estacio., 2005).

Up until the 1990s, these vocational schools existed as separate, smaller units within a larger high school. In the 1990s, however, schools began converting themselves into what are called career academies, which are small learning communities (SLC) or entire high schools that have a vocational purpose (Stern, Wu, Dayton, et. al, 2005). CEC represents yet a different model of a career academy. CEC takes components of the small learning community environment, and the Chicago-style career focused high school (stand alone CTE high schools) and is shared by the base high schools as a place where students go on a part-time basis.

The impact suggested by the current research on career academies centers on three primary areas: 1) A proportional relationship between increased investments in career-related experiences during high school can improve students’ postsecondary labor market prospects. 2) Demonstration of the feasibility of accomplishing the goals of school-to-career and career-technical education without compromising academic goals. 3) Career Academies can make special efforts to serve students who are at risk of dropping out of high school without compromising their capacity to provide college access opportunities, as well as labor market impacts, for all students (Kemple & Willner, 2008).

The first wave of education reforms launched in response to the A Nation At Risk report started with an exclusive focus on academic skills; gradually, however, as the initial reforms appeared to have limited impact on student performance, it became clearer to reformers that “vocational preparation was essential if the U.S. was to be competitive in a technologically-advanced global workplace “(Rojewski, 2002, pg. 15). According to Lynch (2000), “career and technical education is integral to whole school, comprehensive reform; it is not separate from it” (pg. 12). He envisioned four primary purposes of CTE: providing career exploration and planning, enhancing academic achievement and motivation to learn more, acquiring generic work competencies and skills useful for employment, and establishing pathways for continuing education and lifelong learning (Lynch, 2000). Parnell (1985) introduced the notion of tech prep education that targeted the “neglected majority”, whom he considered the middle third of students. Tech Prep would be an articulated student-centered program that included 2 years of high school followed by 2 years of postsecondary education involving both technical and academic curricula, with an emphasis on trying to address the general lack of preparation students were receiving to successfully transition from school to adult life. Parnell hoped that tech prep would replace the general education track in most high schools, and to provide an attractive educational alternative for adolescents (Lynch, 2000).

The concept of tech prep was considered by many to be an important potential solution to meet the dramatic changes envisioned in the requirements of the future 21st century workforce – increases in older, minority, and women employees and major transitions in the work place from manufacturing to service-oriented jobs. With a slower growing workforce comprised of larger numbers of women, older, disadvantaged, and minority workers, the report predicted that only “30% of new jobs would require a 4-year college degree while an additional 22% would require 1 to 3 years of postsecondary education or training” (Lynch, 2000, pg. 12). For high-skilled jobs, however, high-skilled labor would be required
therefore “education beyond high school but less than a baccalaureate degree was expected to be essential to be able to qualify for higher wage jobs” (Hartley et al., 1996, p. 36 as cited in Lynch, 2000).

The “neglected majority” that did not make the transition well from high school to the future workforce were labeled further as “the forgotten half” in a report entitled The Forgotten Half (William T. Grant Foundation, 1988). Results from the report concluded that “a majority of non college-bound youth received minimal assistance for work and adult life, resulting in substantial problems-including the lack of marketable job skills, a prolonged period of floundering in the labor market, poverty, and despair” (Lynch, 2000, pg. 13). The Commission believed that job-specific training programs should be replaced with education that linked adolescents to adult life (Lynch, 2000).

Given these two primary risk factors and some of the consistent themes from the various educational reform efforts since the 1983 A Nation at Risk report, career and technical education has the potential to contribute to general educational reform efforts through “the integration of academic and vocational education; emphasis on developing general (transferable) work skills, rather than focusing on narrow, job-specific work skills; articulation between secondary and postsecondary vocational programs (coordinated transition from school to work); adjustments in programs to accommodate changing workforce demographics; preparation for a changing workplace that requires fairly high-level academic skills; familiarity and use of high technology; higher order thinking skills including decision making and problem solving; and interpersonal skills that facilitate working in teams” (Lynch, 2000, pg. 14).

**State and local visions come together**

The Central Educational Center, in many ways appears to embody this vision of CTE. The concept of CEC in some ways began with a simple phone call. In 1996, the manager of one of the largest employers in Coweta County called the public school Superintendent to inform him that the basic reading, writing, and arithmetic skills of local high school graduates were simply not acceptable; they had a failure rate of over 50%. During that same time, the manager reported, his company was beginning to rely on more automation and could find few with sufficient technical skills. The manager initially began talking with the Superintendent of Coweta County Schools to explore the issue of having the school district help with retraining existing employees. In response, the Superintendent began exploring ways to address this issue and the idea of a technical high school that would help teach some of the specific skills employers were seeking became a consideration.

The Superintendent turned to a Coweta County resident with a reputation for having expertise in training and human performance – Dr. Joe Harless. Ironically, Harless at the same time was near the completion of a book called The Eden Conspiracy that outlined a utopian vision of what a school designed and operated using his ABCD (Accomplishment Based Curriculum Development) system would look like. At their initial meeting, Harless articulated this vision to the Superintendent and was subsequently asked to chair a steering committee to begin planning the school. He accepted the position and saw the creation of the Central Educational Center (CEC) as a serendipitous opportunity to test the theoretical model outlined in his book.

The purpose of this study is to chronicle the story of the Central Educational Center’s (CEC) beginnings and unfolding story. It also attempts to identify key components that contribute to its overall efficacy, including the implementation of different educational change movements such as charter schools and career and technical education that may not be part of the “school within a school” career academy
The study seeks to answer four specific research questions: 1) What impact has CEC had on students? 2) What role has charter school status and a career technical education orientation played at CEC? 3) What lessons can be learned from studying CEC and what are the implications for educational reform? 4) What are the goals for replicating the CEC process through Career Academies in the state of Georgia?

**METHOD**

In order to protect against threats to the study’s overall validity and reliability a mixed-method design was used emphasizing the case study as the predominant mode of inquiry supplemented by survey research and historical, longitudinal data. Primary data collection efforts took place over a four month period from February to June 2006, with a five day onsite visit from May 8th to May 12th during the 2006 spring semester. Overall sample size involved 119 participants using a stratified purposeful sample of students by grade, gender, and ethnicity comprised of interviews (n=31), focus groups (n=31), and surveys (n=57). In five different classrooms were observed in their natural setting.

A post-hoc analysis of student data also was also conducted involving 54 students divided into two groups: CEC (n=27; students that attended for at least two semesters who were in 10th grade beginning with the 2001 academic year) and non-CEC (n=27; a matched sample of students who never attended CEC that mirrored the CEC group by gender, ethnicity, and prior GPA). Both groups were analyzed on three variables – attendance, tardiness, and GPA – for a three year period from 10th-12th grade.

To develop a robust, authentic view of CEC, the study gathered the unique perspectives from each of the major stakeholder groups. Study participants were selected through either purposeful stratified sampling or represented samples of convenience and included students parents (n=4), students (n=33), faculty (n=4), staff (n=11), school administration (n=5), local school district officials including feeder school principals and the superintendent (n=6), and business (n=3). Participant observations, as co-investigators of this research, have also been provided by the original and current head of the school, Mark Whitlock, and head of the Georgia Career Academy implementation Lucy Phillip.

Data analysis involved comparing each respondent’s answers in an Excel spreadsheet by question and collapsing responses into similar categories. In addition, when a quantitative rating was available, a statistical average was calculated. An independent samples t-test was conducted between CEC and non-CEC Groups across the three variables of GPA, tardiness, and unexcused absenteeism. In addition, Pearson-product R correlations ($\alpha=.05$) were examined for significant relationships amongst variables.

**RESULTS**

_The stories of three CEC students_

Christine grew up in the government-supported housing apartments across the street from CEC. She never knew anyone in her family who had graduated from high school. When Christine completed high school, not only on-time, but with Technical College credentials in nursing support roles, she was hired by the local hospital. In her own time, Christine had become not only a high school graduate, but an
employed college graduate, working in her community.

Matthew’s family moved from the Midwest to the south, generally thought of as a move to lesser educational opportunity. Matthew, however, wanted to pursue his dream of one day working with NASCAR. As he aged, he determined that driving skills could not get him there, and likely neither could mechanical skills. He found CEC’s Broadcast Video program and began applying his passion to a newly possible skill set. After his junior high school year, and a summer internship with Turner Broadcasting (TBS), he was the lone high school student asked to continue his work. Through CEC work-based learning flexibilities, Matthew spent little time at CEC and a lot of time at TBS. When he was given “producer” responsibilities, at age 17, not only was Matthew the youngest-ever TBS producer, but he was also producing quality work on TBS’s NASCAR.com, thus reaching his “dream industry” in an entirely new way.

Casey looks back now, as his entertainment attorney helps with royalty contracts, and wonders why it was that CEC really got him focused. He said that he always liked computers, but it took CEC to channel that desire into the 3-D animation industry. Casey helped a university researcher deliver on a Pentagon contract, he helped animate an independent science-fiction film, and he formed a corporation, all while a high school student at CEC. Casey is now 20 years old. These students, and many others, were able to use the CEC platform to deliver on specific job desires. That would likely not have been possible without the system focus at CEC, so laser-like in its intent to “ensure a viable 21st century workforce.” The systems approach allowed no wasted language in that mission. Every word is intentional, suggesting a degree of planning and preparation that contrasts with previous 20th century high-school career-tech education. The systems approach has allowed career-tech, for high school students, to emerge from its previous 20th century efforts to “grow and sustain interest.” Now, high school career-tech can deliver jobs…and jobs that necessarily require higher levels of education in a very different 21st century economy.

What is CEC?

CEC is a technical charter high school that does not award a high school diploma. (High school diplomas are awarded through the students’ home high schools). Students who attend register for and take technical as well as some specialized academic courses (e.g. Latin and the Performance Learning Center which is a virtual high school credit recovery program that students attend full time). Most CEC students attend on a part time basis and take a few courses that they are interested in, or follow an established set of courses in a technical program area to earn technical/career seals of endorsement on their high school diplomas.

CEC’s mission statement is “to ensure a viable 21st Century work force.” The school was opened, first and foremost, to help close the gap between business demands and qualified high school graduates by providing technical training to all interested high school students in the Coweta County School District. The CEC Web site operationalizes its mission as the “Central Educational Center responds to a rapidly changing economy by SEAMLESSLY combining academics with career and technical education …high school with college…and education with businesses” (CEC Website, 2006). CEC is a legal entity, “CEC, inc.”, and a 501(c) 3 nonprofit company, which represents a formal partnership between the Coweta School System, West Central Technical College, and local businesses. It is governed by a board of directors comprised of members from each group with the addition of parents
from the general community. As a charter school, CEC is part of the Coweta School District but its charter is ratified by the State of Board of Education providing it with the legal freedom and mandate to be innovative and to do things differently than traditional public high schools. CEC is also the campus for West Central Technical College in Coweta County. Sixteen technical college faculty and staff, five of which are teaching faculty, are located at CEC. Eleven technical certificate programs are offered for high school students in the dual-enrollment program (credits count towards high school graduation and technical college credit) which are also available for adults who wish to take technical college courses.

The results of the study suggest that overall internal and external stakeholder satisfaction was high. Students in general felt that CEC allowed them to explore interesting potential careers prior to going to college, seemed to have higher standards, while faculty and staff treated them more like adults, and teachers were extremely experienced and “know what they are talking about.” Though they do not like the school’s attendance and tardy policy, students understood its value and believed it was effective.

Parents felt that; CEC provided students with hands-on, career-oriented learning that differed from the college bound focus of other high schools; teachers appeared to be more involved; and their kids appeared to mature and grow in confidence, especially in terms of social relationships. The school’s former and current administrators felt that the hands-on learning was having the intended positive effect on student “learning, retaining, and transferring” skills. In addition, exposure to career and technical education gave students a glimpse of the “real world” and the expectations of future work environments. CEC faculty and staff believed that what they saw in students, and heard anecdotally from employers, confirmed that valuable technical and work ethic skills transferred outside of the classroom. As one faculty member stated, “We are a little stricter at CEC in terms of attendance and tardiness, at the same time (there is) more flexibility and freedom. Students feel more like adults; they can definitely see more purpose (in) what they are studying” (CEC faculty member interview, May 2006).

The principals of the district’s three additional high schools and the district’s superintendent reported that CEC was good for Coweta County and did good things for students that attended. Positives included “strong programs and technology”, “teaches students responsibility”, and “allows students to see a broader spectrum of the work world.” The Superintendent also saw CEC and charter schools representing the flexibility to “think out-of-the box” and try new things without being penalized. Interviews with local businesses found similarly high levels of satisfaction. Businesses reported being “very satisfied” with the caliber of students CEC was producing. One business interviewed emphasized that they had not previously seen such quality among high school-only graduates. They emphasized the value-added savings represented by lower training costs and increased productivity among better trained new employees.

CEC and control group comparisons

A repeated measures comparison of the two groups across three variables – GPA, unexcused absences, and instances of tardiness – over a three year period yielded interesting results. Overall average GPA over this period from 9th grade to 12th grade saw little change in either the CEC group (mean GPA decreased 0.45 points from an average GPA of 84.42 in 9th grade to 83.96 average GPA in 12th grade) or the non-CEC Group (mean GPA increased 0.10 points from 83.39 GPA in 9th grade to 83.50 average GPA in 12th grade).

Trends in unexcused absences and instances of tardiness, however, suggested clear differences
between the two groups. For unexcused absences the CEC group decreased an average of 25% from 10th to 12th grade in contrast to a 15% increase for the non-CEC group during the same time period. Table 1 shows the overall change in both groups over the same three year period.

Table 1 – Unexcused Absences (2001-2004 Academic Years)

<table>
<thead>
<tr>
<th></th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>Cumulative Difference</th>
<th>% Change</th>
</tr>
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<td>23.04</td>
<td>25.41</td>
<td>-8.52</td>
<td>-25%</td>
</tr>
<tr>
<td>Non CEC</td>
<td>37.63</td>
<td>36.22</td>
<td>43.26</td>
<td>5.63</td>
<td>15%</td>
</tr>
</tbody>
</table>

Figure 1 shows the divergence between the CEC and Non-CEC groups in terms of total average absences per year.

Figure 1

For instances of tardiness the difference was even more dramatic – The CEC group showed a reduction in average instances of tardiness by 40% from 10th to 12th grade while the non-CEC group had an overall average increase of 38%. Table 2 shows the average annual change for both groups.

Table 2 – Unexcused Tardiness (2001-2004 Academic Years)

<table>
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<th>10</th>
<th>11</th>
<th>12</th>
<th>Cumulative Difference</th>
</tr>
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<tbody>
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<td>5.85</td>
<td>3.30</td>
<td>-2.19</td>
</tr>
<tr>
<td>Non CEC</td>
<td>7.00</td>
<td>10.48</td>
<td>9.63</td>
<td>2.63</td>
</tr>
</tbody>
</table>
The figure below shows the overall divergence of the two groups more clearly.

Figure 2

An independent samples t-test showed a statistically significant effect for instances of tardiness, $t(52) = -2.71$, $p < .001$, with the CEC group having a substantially lower number of instances of tardiness than the non-CEC Group at the 12th grade level. In addition there was a moderately negative relationship between performance level and instances of unexcused tardiness at the 12th grade level, $r(27)= -.44$, $p<.01$, indicating that low and medium performing students decreased instances of unexcused tardiness from 10th to 12th grade while their counterparts in the non-CEC Group did not.

DISCUSSION

Discussion of the results and implications of the study have been organized around its four research questions: 1) What impact has CEC had on students, 2) What role has charter school status played at CEC, 3) What lessons can been learned from studying CEC and what are the implications for educational reform, and 4) What are the goals for replicating the CEC process through Career Academies in the state of Georgia?

What impact has CEC had on students?

Through interviews, focus groups, surveys, natural observations, and in-class discussions, the data strongly suggests students have high levels of satisfaction at CEC and an ad-hoc analysis of CEC versus non-CEC students suggest that students who attend CEC for at least two semesters significantly decrease overall instances of tardiness and absenteeism throughout their high school career. Starting at the student motivation level, students intentionally choose to enroll, select courses they are interested in taking, courses are more hands-on and linked more closely to a career, and students are treated more like “college students” and are provided with both higher levels of autonomy and expectations such an instructional atmosphere requires. The work ethic grade, typically used at technical colleges is used and heavily emphasized for all students that attend CEC. Another important aspect of maintaining the overall culture at CEC is that students can be prohibited from continuing to take courses at CEC if they consistently do not live up to these high expectations. The lack of improvement in overall GPA, however, is surprising and suggests two potential trends – first, student attitude and academic performance are well established during the 9th grade year, and second, there appears to be little relationship between tardiness and absenteeism and academic performance, an unexpected trend which requires further in-depth study.

Another primary facet of CEC is the opportunities to become dual enrolled and earn college credit while simultaneously fulfilling high school requirements. While made available to a limited number of
students who are able to get accepted into the technical college to pursue dual enrollment opportunities, CEC helps achieve the grand vision so eloquently articulated by Harless and the Georgia Governor, “where students can graduate from high school on Friday, graduate from technical college on Saturday, and go to work on Monday.” This seamlessness between secondary and college education speaks to the foundation of career and technical education where students are prepared for high skilled careers that requires education beyond high school but less than a full baccalaureate degree and are taught in an environment that blends academic and work preparation together and promotes working in teams and interpersonal skills such as; on-time performance, respect, hard work, and organization.

**What role has charter school status played at CEC?**

CEC did not plan to become a charter school. After the steering committee conducted its analysis on the overall desired outcomes of the school, however, it became clear that becoming chartered aligned well. Since charters are not popular with some districts, communities are encouraged to look at starting career academies regardless of their charter status. It may be that these academies may become charter schools as they mature – similar to what happened at CEC. The state’s grant funds however, are available only to academies that become charter schools – because of the importance of incorporating the flexibility that charters provide.

CEC has grown substantially during the last two years with a re-alignment of commitment around an “expansion” strategy. For some period of time after its beginning, CEC’s “partners”, defined as local business, the Coweta County School System and West Central Technical College, looked at the innovation as something of an anomaly-something important but still to be tested and tried; that view changed substantially with the pressures of a growing population, and then with the pressures of a declining economy. The economic logic of the model suggested that its focus on advanced workforce preparation, for younger ages, offered business the chance to think long-term about strategies that had to be executed without the benefit of substantial corporate training dollars. Government resources, combined with an “ear” to the needs of business, could make CEC the out-sourced long-term training department that business could not afford, even in good economic climates. The economic logic of the model, for a fast-growing school system, suggested that expensive career-technical education programs were even more important to “centralize” in climates of either fast growth or economic decline.

**What lessons can be learned from studying CEC and what are the implications for educational reform?**

Sustainability requires ongoing partnerships that outlive any one person. As replication continues, it can be seen that the process of coming together and working out issues is important. The community’s commitment to the academy will see it through all of the growth challenges. Again – an important lesson learned is that REPLICATION does not mean DUPLICATION. Communities that try to duplicate CEC without going through the development process may miss out on important aspects of ownership, pride and commitment that come from working together for a common goal.

The CEC experience suggests that educational reform may be a fundamentally flawed concept. Much of CEC planning surveyed the landscape for innovative models, and found few that met the requirements set out by the Coweta steering committee, so the Coweta community decided to create
something new. Educational reform seems often to be the process of re-setting what already exists, and doing so using a top-down control regime. That is, it seems the likely failure that leads to DUPLICATION. CEC, in contrast, asks more than uncomfortable questions about the effectiveness of education. It dares to ask whether existing educational delivery systems need to be overhauled or scrapped. CEC suggests that local initiatives can move far faster than state initiatives, so long as the freedom to do so is available. CEC is a grassroots effort that, by its existence, makes top-down control regimes somewhat uncomfortable, at minimum. Disruption that leads to innovation is a by-product of a system approach that continuously evaluates performance of the model. In the systems approach, as applied in the CEC process, “measuring failure and assigning blame” is replaced by “evaluating performance and developing continuous improvement approaches.”

What are the goals for replicating the CEC process through Career Academies in the state of Georgia?

The goals for replicating the CEC process across the state of Georgia include the establishment and growth of Georgia CAN to help provide a coordinated network for sharing of information, providing assistance, documenting progress/results, etc. It is hoped that all districts will consider career academies as they work on improving their educational systems. Georgia CAN will be the hub designed to help with the replication process and to help bring partners together with this common focus.

While it is clear that the Technical College System encourages the use of a CEC-like process in the establishment of Charter Career Academies, it is not clear that Georgia will require the use of that process; however, even in cases where a process of Alignment-Analyze-Design-Development-Implement-Evaluate was not strictly followed, we find Career Academies in progress who returns to the process for “help.” Recently, one of the original replication sites, Whitfield County, re-evaluated its original approach and determined that its local community situation might make better use of the Career Academy if the “High Tech High School” model was included as part of the local model. CEC had counseled Whitfield County, some years earlier, that DUPLICATION would lead to difficulty since community conditions were less similar to Coweta than suspected.

The apparent rejuvenation of the growth of Whitfield County Career Academy seems to suggest that the CEC process, thoroughly taught in the community, may be used now to a greater extent. The CEC process is just below the surface of what is required to be a “Charter Career Academy in Georgia” and its use as a “goal” for the project remains tentative. However, the leaders of the Charter Career Academy initiative certainly ensure that the CEC process is available as a guiding resource for those communities who choose to follow it. There are currently no Charter Career Academies, in development or in operation, who have not visited CEC to study that CEC process.

Conclusion

Many in vocational education viewed A Nation at Risk (1983) as having a negative view of vocational education’s role in public education. The National Commission on Secondary Vocational Education issued The Unfinished Agenda in 1984 with hopes to refocus the fundamental goals of education away from specifically academic-driven outcomes toward more general academic education and personal skills development. They specifically noted that vocational education could be effective in addressing the problems identified with public education, by enhancing “(1) personal skills and
attitudes, (2) communication and computational skills and technological literacy, (3) employability skills, (4) broad and specific occupational skills and knowledge, and (5) foundations for career planning and lifelong learning” (Rojewski, 2002, pg. 13). Researchers have urged that career and technical education be seen as an essential component to systemic educational reform rather than a separate component altogether (Lynch, 2000).

The primary focus of career and technical education has been the “neglected majority” or “forgotten half” of students who may not see themselves as college bound and at the same time receive very little training for a future life outside of high school and who may not realize that college is a possibility for them. The overall consensus of people that participated in this study, which has been supported by data, was that the majority of students attending CEC are these middle-of-the-road students who in fact are looking for more specific training that will connect and give them a glimpse of future pathways and careers and that may also open postsecondary educational opportunities to them.

Europeans have staked their economic future on a more efficient mix of American “university” and European “trades education.” Have we created the labels “college bound” or “career bound” because we have not asked the questions about the future of the American university model with its emphasis on an expanded core liberal arts curriculum that is not required in the European model or in the limited core of community/technical college? CEC seems to ask questions about organization sustainability in the midst of what might become a more efficient model. CEC also asks questions of the silo approaches to K-12, community college, university that helps to place the label on students. If we did not organize education as “events within silos” could we really label students the way that we currently label them? Have we foisted on them a view of themselves that reflects manufactured limitations of a disconnected system?

Georgia’s educational reform initiative looks at CEC and identifies components important for sustainable success. It combines the lessons learned from past career academy research, a successful model (CEC), and current day technology and pedagogy to launch, grow and sustain career academies in communities throughout the state. This initiative focuses on merging academic, career, technical, and personal skills education in an environment different than the school within a school (SWS) model, but using the components of the SWS model that have been shown to have positive results for student success. Support for Georgia’s reform effort includes the awarding of approximately $16 million in 2007, again in 2008, and again in 2009 for construction of new career academies and remodeling/enhancement of existing career academies (up to $3.2 million each) using “things learned” at CEC and in career academy research.

The selection process for these awards was designed to help ensure long-term success by incorporating key elements from career academy research, and key elements that have made CEC successful, in each new academy. Some of these elements include: charter school status; having a partnership that at minimum includes a technical college or university with a technical division, school district, and local businesses; and offering dual enrollment courses. High school students can therefore earn college credits and technical certificates in addition to their high school diplomas. Equally important is the commitment to use a planning/design process for the development and implementation of the academy (Other critical elements are reflected in the selection criteria/rubrics that incorporate the “Career Academy National Standards of Practice”).

Because the grant award and implementation processes flows through the Technical College System
Because the grant award and implementation processes flows through the Technical College System of Georgia (TCSG), the college/high school partnership is strengthened. The application process was designed as an important component to the process of designing and implementing a career academy. The application process itself is meant to help establish a systemic approach to the planning, design and implementation of each career academy. Again, Georgia is operationalizing the answer to a “new” organization demonstrated by CEC: that strong connection (at minimum) between high school and technical college. The processes continue to be designed to respond to needs raised by evaluation of the model. As state leaders view the model, they analyze the public policy needed to support it, and then they design state structure that enables career academies. All eligible applications are reviewed by a team of raters, each of which reads all applications, and each of which rates one of the criteria, following established rubrics. Enlisting multiple raters helps ensure that all applications are given rigorous and fair assessments, minimizing bias. Finalists are invited to give a brief presentation before a panel, providing the opportunity to provide information that may not have been addressed in the written application.

Once the applications are ranked and awards announced, support for the implementation of the new career academies is available through TCSG and existing career academies-including CEC. The new career academies submit quarterly reports, agree to participate in data collection for research and evaluation purposes, and assist other communities that want to implement career academies – helping to ensure the continued success and growth of career academies in Georgia.

CEC appears to embrace the inherent value of John Dewey’s concept of pragmatism where education’s role is first and foremost to educate students towards learning how to become a functional citizen; since the world spins faster than in Dewey’s day, perhaps CEC and career academies are the only rational way to respond to his educational pragmatism. The school also seems to embrace the spirit behind the inherent value of choice, built-in accountability, and requisite autonomy and flexibility offered by charter schools. Furthermore, it appears to integrate and reflect the historical promise offered by career-technical education where learning is meaningful, relevant, and prepares students for life outside of formal education. 21st Century education is often mentioned in today’s literature and growing media attention towards the role of public education in preparing the future workforce needed to compete in a “flattening” world where competition and the need for skilled labor is truly global.

Among the authors of this study, one has a college-aged daughter, one has two adult step-daughters, and another has three elementary school-aged children. The relationship between level of education attained and salary remains consistently high and, as parents responsible for nurturing citizens of society and the world, we want above else for them to be competent, functional, and productive individuals. Our nation’s schools, colleges, and universities play a large role in how they develop, grow, and perceive their role in our society. Their future employers hold this education and the inherent compact associated with education that the essential soft skills and hard skills will accompany it, in high esteem. The expectations remain high that they will fulfill their commitment to ensuring each of our children’s potential is reached to the benefit of us all. Our children in turn look at us, the parents, with the expectation that we will guide them with utmost dexterity and accuracy towards the appropriate institutions in which they can best be prepared for a life outside of formal education. They have high expectations of us too and we should not expect anything less. The question that remains before us and the nation is if we can deliver on this promise.

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