Selected Career and Technical Education Teachers’ Perceptions of the No Child Left Behind Act (Public Law 107-110): An Exploratory Study

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Abstract

The purpose of this study was to determine how selected career and technical education teachers (CTE) in West Virginia perceived the impact of the No Child Left Behind (NCLB) Act. A convenience sample was used to select thirty-seven (N= 37) career and technical education teachers from five Southern West Virginia career and technical schools. The data suggest that professional development programs provided less than adequate provisions of NCLB to selected CTE teachers. It appears that selected CTE teachers were less than cognizant that the NCLB Act does not reduce local control of schools. Comments from selected participants suggest that more emphasis should be placed on accountability of students, government, and parents. Overall, selected career and technical education teachers’ perceptions toward teacher quality and parental choices appeared to be mixed. On the other hand, selected CTE teachers were more likely to support local control and assessment provisions of the NCLB Act.

Introduction

The need for higher numerical literacy, communication, and interpersonal skills in the workplace has grown over the past decade and will continual to grow (Brand, 2003). Economic and labor market trends that will influence the federal government’s role in career and technical education (CTE) include the changing nature of work that requires higher numerical literacy, and technical skill levels. Nearly half (46%) of all employers reported difficulty in hiring qualified workers during 2001, and close to a third (29%) believe they will experience difficulty in hiring in future years (Dixon, Duke; Storen, and Van Horn, 2002). More jobs now require some postsecondary education but not necessarily a 4-year degree. While approximately 33 percent (National Center on Educational Statistics, 2001) of adults receive a bachelor’s degree, the remainder needs other avenues and choices to gain the technical and occupational skills and further education to be successful in the workforce.

In addition to considering economic and labor market needs, the context for federal investment in CTE, particularly with regard to secondary education programs, is also
influenced by the poor performance of many high schools. Problems at the secondary level have been chronicled by reports, such as Breading Ranks: Changing an American Institution of the National Association of Secondary School Principals; High Schools of the Millennium of the American Youth Policy Forum; From the Margins to the Mainstream: Effective Learning Environments for Urban Youth of Jobs for the Future; and Raising over Sights: No High School Senior Left Behind of the National Commission on the High School Senior Year.

Hans Meeder, (formerly of the Office of Vocational and Adult Education) believes that career and technical education needs to complement No Child Left Behind and be aligned with it because of the dynamics between the economic environment, global competition and the influx of technology into the workplace (Lewis, 2004). These forces are requiring that all students have a strong academic foundation (Lewis, 2004). This fact is supported by wage trends for skilled labor. The National Assessment of Vocational Education (U.S. Department of Education, 2002) stated that students joining the labor force out of high school need to have a strong foundation of academic skills (p. 14-15).

Career and technical education (CTE) is not immune from the provisions of the No Child Left Behind Act (NCLB) of 2001 and should not view the law as applying to only elementary and secondary education. Phelps (2002) reported that past versions of the Elementary and Secondary Education Act (ESEA) are weak in the area of secondary education. While NCLB is still heavily focused on K-8, there are provisions that do impact secondary education. The significance of this research is to develop a benchmark profile of CTE teachers’ perceptions toward the NCLB Act (PL 107-110). This is an important time for such an analysis as it follows an intensive period of education reform.

**Conceptual Framework/Theoretical Base**

Career and technical education programs in the U. S. exist because of federal legislation. In fact, since the beginning of federal support for public career and technical education as mandated by Smith-Hughes Act of 1917 (PL64-347), the federal government has been a predominant influence in determining the scope and direction of secondary, and to a lesser extent postsecondary, career and technical training (Rojewski, 2002).

A primary force that led to passage of the Smith – Hughes Act was economic, seen in the growing need to prepare young people for jobs created as a result of the industrial revolution. As originally envisioned, career and technical education was viewed as a sequence of courses and experiences that were designed to prepare individuals for paid and unpaid entry-level employment requiring less than a baccalaureate degree (Gordon, 2003). The Smith – Hughes Act established vocational education as a separate and distinct “system” of education that included separate state boards of vocational education funding, teacher preparation programs and certification. Unfortunately, the legislation “contributed to the isolation of vocational education from other parts of the comprehensive high school curriculum and established a division
between practical and theoretical instruction in U.S. public schools” (Hayward & Benson, 1993, p.3).

Vocational education, as implemented through the Smith – Hughes Act, emphasized job – specific skills to the exclusion of the traditional curriculum. Through a series of reauthorizations to the Smith – Hughes Act, from 1920s to 1950s, new vocational specific areas were added. Rojewski (2002) reported that:

The passage of the Vocational Education Act of 1963 (PL88-210) signified a major change in federal policy and direction for CTE, from an exclusive focus on job preparation to a shared purpose of meeting economic demands that also included a social component. (p.10)

Rojewski (2002) further noted that “the dual theme of responding to economic demands for a trained workforce with marketable skills and social concerns for accessible programs to CTE students were embedded in the Carl D. Perkins Vocational Education Act of 1984 (PL98-524)” (p.10).

The passage of the Carl D. Perkins Vocational and Applied Technology Act of 1990 (PL101-392, also called Perkins II) emerged with a broad theme that placed greater emphasis on academics. While the commitment to special populations remained strong, it was tempered somewhat by the high level of publicity and effort devoted to increasing academic standards in career and technical programs (Rojewski, 2002). Some educators believed this change in emphasis has signaled one of the “most significant policy shifts in the history of federal involvement in career and technical education. For the first time emphasis was placed on academic, as well as occupational skills” (Hayward & Benson, 1993, p. 3).

The Carl D. Perkins Vocational and Technical Act (PL105-332) was signed into law in 1998. Perkins III emphasized improving academic achievement, and preparing young people for postsecondary education and work. Initiatives enacted through Perkins III consisted of core performance indicators. Core performance indicators included things such as student attainment of identified academic and vocational proficiencies (state standards); attainment of a high school diploma or postsecondary credential; placement in postsecondary education, the military, or employment; student participation in and completion of nontraditional training and employment programs (Lynch, 2000).

In January 2002, President George W. Bush signed into law the No Child Left Behind Act of 2001, the reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965. Many believe that NCLB represents the most sweeping national education reform legislation in decades. The U.S. Department of Education noted that NCLB based on the principles of increased flexibility and local control, stronger accountability for results, expanded options for parents, and an emphasis on effective teaching methods, and was scientifically proven to increase students’ academic achievements.

Teacher Quality. The federal No Child Left Behind Act of 2001 requires that all teachers of core academic subjects be “highly qualified by the end of 2005-2006 school
year.” To be considered highly qualified, a teacher must be fully certified in the subject(s) taught, have a bachelor’s degree, and demonstrate subject area competence in a manner to be determined by the state (Harris & Ray, 2003).

Under NCLB, states are required to ensure that all schools and districts meet the highly qualified teacher requirements. State intervention is required if sufficient progress is not made towards achieving 100% compliance by the 2006 deadline. In addition, districts are required to hire only highly qualified teachers for programs that receive federal Title 1 funds, or they risk loss of that funding.

**Choices for Parents.** Parents of children in low-performing schools are given new options under NCLB. Parents with children in schools that do not meet state standards for at least two consecutive years may transfer their children to a better-performing public school, including a public charter school, within their district. If they do so, the district must provide transportation, using Title 1 funds if necessary. Students from low-income families in schools that fail to meet state standards for at least three years are eligible to receive supplemental educational services, including tutoring, after school services, and summer school.

NCLB provides increased support to parents, educators, and communities to create new charter schools. Students who attend a persistently dangerous school or are the victim of the violent crime while in their school have the option to attend a safe school within their district.

**Flexibility.** Education department officials who met with teachers and state local officials after NCLB went into effect found that most states had not been taking full advantage of the flexibility built into the law. For example, the alternative method for experienced teachers to demonstrate subject matter competency, known as HOUSE (High, Objective, Uniform State Standard of Evaluation), allows for current teachers to demonstrate subject-matter competency that recognizes the experience, expertise and professional training they have acquired during their years in the teaching profession (Reese, 2004).

**Accountability.** Holding states and communities accountable for their performance with regard to CTE programs in essential. The NCLB Act also provided the states with an important tool to create accountability structure at the secondary level (Brand, 2003). Career and technical education has attempted to respond to the call for higher academic standards in a number of ways over the past 20 years. Tech Prep emphasized academics in such areas as applied communications and contextual mathematics and physics. High Schools That Work focused on eliminating the “general” track and the need to document students’ academic success in these programs. School-to-work and school-to-career attempted to create a better understanding of the growing sophistication of the American workplace and the need to connect education and work.

While the workplace has required increasingly rigorous academic and technology-related skill requirements as criteria for career success, NCLB will bring enormous pressures from within the test driven education system to raise the proficiency standards.
of all students (Daggett, 2003). The NCLB legislation totals more than 1,400 pages. The salient points, however, are fairly straightforward. They are:

- By 2004–2005 all students must reach a specified proficiency level in reading, writing, and mathematics and soon thereafter in science.
- Beginning in 2002-03, schools were responsible to identify by selected subgroups (students with disabilities, limited English proficient, gender, ethnic minorities, low socioeconomic status, etc.) and demonstrate adequate yearly progress (AYP) for each subgroup for each of the next 12 years.
- Beginning in 2002-03, schools were responsible to identify selected subgroups (students with disabilities, limited English proficient, gender, ethnic minorities, low socioeconomic status, etc.) based on their achievement status and then demonstrate adequate yearly progress (AYP) for each subgroup for each of the next 12 years until they all achieve 100 percent proficiency. This proficiency will be measured in large part by satisfactory performance – including demonstrable improvement – on state tests in reading, writing, mathematics, and science.
- Any school that does not achieve AYP for all students two years in a row will face serious consequences from state and federal authorities.

Therefore, it is more essential than ever for career and technical education to be able to prove that it contributes not just to the applied workplace competency demands of business, but also to the academic proficiencies of served student population’s state academic tests – if CTE is to remain a viable program in our secondary schools.

Many states have recently implemented teacher licensure standards that use competency-based or performance-based models. The state standards are often aligned with standards set by national organizations for the preparation and licensure of teachers. Licensure standards can be used to measure whether teachers trained in either traditional programs or through alternative certification programs have needed skills and knowledge, but the unique needs of rural schools are seldom addressed in these policies (Ludlow, 1998).

West Virginia is one of the first states in the nation to receive full approval for its plan to reach the goals set forth by the NCLB Act. This accountability plan sets into place the methods by which the state will measure Adequate Yearly Progress (AYP), a cornerstone of NCLB (West Virginia Department of Education, 2004).

A review of the literature revealed a paucity of information regarding perceptions of career and technical education teachers toward the No Child Left Behind Act. If career and technical educators are to be accountable for implementing school reforms that have evidence for improving academic achievement, then it is imperative for educational researchers to address this lack of empirical evidence. This study was considered as an exploratory research. Babbie (1998) reported that:

Exploratory studies are mostly typically done for three purposes: (1) to satisfy the researcher’s curiosity and desire for better understanding, (2) to test the feasibility of undertaking a more extensive study, and (3) to develop the methods to be employed in subsequent study. (p.90)
According to Vogt (1999), “exploratory research looks for patterns, ideas, or hypotheses, rather than research that tries to test or confirm hypothesis” (p.105). The focus of this study was to provide initial insight and baseline data on NCLB provisions relevant to CTE, outlining potential opportunities and challenges for West Virginia’s policymakers.

**Purpose and Research Question**

The purpose of this study was to determine how career and technical education teachers (CTE) in West Virginia perceived the impact of the No Child Left Behind (NCLB) Act. The research question of the study was:

What are the perceptions of selected CTE teachers in West Virginia regarding teacher quality, parental choice and supplementary services, local control, assessments and accountability?

**Limitations of the Study**

1. Due to the small sample size, findings and conclusions should be inferred only to the selected participants of this study and not CTE teachers in general.
2. Since Agriculture, Family and Consumer Sciences, and Marketing teachers were not surveyed; it is possible they have different opinions, especially since in those areas, they are more likely to have 4-year degrees as a group than the T&I teachers, and that may influence perception.
3. Generalizations should be made only to the participants of the study.

**Method and Instrument**

The target population consisted of career and technical education teachers employed by West Virginia Department of Education during the 2004-2005 academic school year. A convenience sampling was used to select thirty-seven (N=37) career and technical education teachers from five Southern West Virginia career and technical schools. Vogt (1999) stated “that convenience sampling involves a sample of subjects selected for a study not because they are representative but because it is convenient to use them” (p.57).

Based upon the review of literature, an instrument was developed by the researchers to collect data for this study. Sixteen statements were analyzed using a Likert-type Scaling system on a 1 to 5 rating. The following descriptors were used based on three different Likert type response scales: Scale (a): 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neither Agree nor Disagree, 4 = Somewhat Agree, 5 = Strongly agree (seven statements). Scale (b): 1 = Strongly Oppose, 2 = Mildly Oppose, 3 = Neither Oppose nor Favor, 4 = Mildly Favor, 5 = Strongly Favor (seven statements). Scale (c): 1 = Not sure, 2 = Limited Extent, 3 = Some Extent, 4 = Much Extent, 5 = Considerable Extent (two statements). The first part of the instrument asked teachers to indicate the extent of their perceptions of teacher quality of the NCLB Act. Part II addressed parental choice and supplemental services of the NCLB Act. Part III assessed
the views of local control and flexibility, and Part IV focused on the views of teachers toward assessment and accountability as documented by the NCLB Act. The demographic section (seven questions) measured related work experience prior to teaching, years employed as a teacher in CTE, program area, level of students taught, highest level of education, age, gender. There was an open-ended section for general comments.

Content and face validity of the instrument was assessed by a panel of experts in career and technical education. Since responses were reported on an individual item basis, an estimate of the overall reliability of the instrument was not obtained (Borg & Gall, 1983). In order to develop a sampling frame, a current list of career and technical education teachers and their mailing addresses were requested from selected career and technical education county directors.

Data Collection

The regional teacher educator of Southern West Virginia administered the instrument during spring of 2005 at selected Faculty Senate meetings.

Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS Version 13.0 for Windows). Descriptive statistics were used to describe the distribution of the data.

Results

Demographic Characteristics of Respondents. The majority of the respondents were male (54.1%). The average age was 42 years with a range from 25 to 62 years. In terms of educational level attained, respondents ranged from having some college education (37.8%) to a master’s degree (20%). Six teachers (16.2%) reported having a bachelor’s degree, and seven teachers (18.9%) reported having an associate’s degree. The number of years of work experience in public education reported by respondents ranged from 1 to 37 with a mean of 10.5 years. The 37 teachers who responded to the study, averaged 14.9 years of related work experience prior to teaching. Almost 50% of the respondents reported teaching students enrolled in both secondary and post secondary programs. Respondents in this study were currently teaching in the following program areas: trade and industrial education, 48.6%; health education, 24.3%; and business education 10.8%. Six respondents (16.2%) reported teaching in “other” program areas.

Perceptions of Selected Career and Technical Education Teachers. Table 1 shows the means and standard deviations for 16 statements regarding selected CTE teachers’ perceptions of the NCLB Act.

<Insert Table 1 here>
Teacher Quality. Over 50% of the respondents neither opposed nor favored the use of Perkins funds for NCLB teacher programs (train, recruit, and retain quality teachers). A majority (46%) of the teachers neither agreed nor disagreed that the NCLB Act hinders the job of teaching. Nearly four-fifths of the respondents disagreed that only CTE teachers who teach core academic courses are required to meet the definition of a highly qualified teachers. The majority of the CTE teachers (37.8%) neither agreed nor disagreed that professional development programs prepare teachers to meet the provisions of NCLB.

Parental Choice and Supplementary Services. Over 60% of the responding CTE teachers disagreed that NCLB Act is perceived as a means of reducing pressure on struggling schools. A majority (57%) of the respondents neither opposed nor favored that parents of children in low performing schools are given new options under the NCLB Act.

Local Control and Flexibility. Over three-fifths of the respondents had favorable perceptions concerning the decision-making authority of local school districts. On the other hand, CTE teachers reported a contradictory finding for statement 12, “The No Child left Behind Act reduces local control of schools” (M= 3.67).

Assessment and Accountability. Almost four-fifths of the respondents favored mandatory high school assessments. A majority (56.8%) of CTE teachers reported that incoming career and technical education students had less than average (M=2.08) preparation in the basic skills.

Comments from Participants Concerning the NCLB Act
It seems that “accountability” was the underlying theme from participants’ comments. This too shall pass [sic]. I’ve seen “Smith Hughes” and “Carl Perkins” changes come and go. All tied to Federal Funding. The Feds just can’t admit that the human [sic] (students) is so complex and diverse that one mold does not fit all. Hence, change every 4-5 years. Nothing, including NCLB, will work for all students. If our government wants to save money in education, we must help each child, early on [sic], discover their own learning style and let them explore it. You can’t mandate “standardized” learning through standardized testing, and hope to reach even a majority of students. But then, what do veteran teachers know? Do away with grades and” testing” as we now know it, and performance will increase in general. We will still “leave some behind,” but not as many as NCLB will.

It interferes with flexibility of teaching various skills in a real-world atmosphere. It fails to do the most important type of test: a performance based exam. It ignores one of the greatest effects upon student involvement: parental involvement.

Students are not held accountable! They are allowed to miss school (unexcused), even suspension and make up all work. What is this teaching them about life? NCLB is just putting more work on teachers and pushing students through the system.
This concept should hold everybody accountable. That is: parents, communities, students, teachers, government (local and federal) support teachers, industries, product, manufacturers, and distributors.

It will definitely take a group effort to solve this problem. Even though the work load is increased, the student should benefit and be better prepared for the workforce.

I feel the intent was positive, but it is unrealistic to think all children will be able to be successful without taking into consideration their levels of ability.

Discussion and Conclusions

It appears that what makes a teacher “highly qualified” under NCLB has led to much confusion for CTE teachers in this study. This may be the case because CTE teachers may perceive that NCLB does not directly apply to them based on how the act defines “highly qualified” and “core academic subjects.” Reese (2004) reported that the term ‘core academic subjects’ is defined in ESEA as English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history and geography. It is a myth that the act requires all teachers to earn a bachelor’s degree as well as certification in every subject they teach. What it does require is for teachers of core academic subjects to have a bachelor’s degree and full state certification and to demonstrate content knowledge in every academic subject they teach (Reese, 2004). The data suggest that professional development programs provided less than adequate provisions of NCLB to CTE teachers in the five counties. Phelps (2002) reported that the teacher quality provisions of NCLB require that professional development for teachers and paraprofessionals to be coordinated with other education programs (Section 11119 of title 1). Analyses done by Stone, Kowske and Alfeld (2004) revealed that academic teachers were afforded professional development more frequently than CTE teachers and also had more opportunities to attend conferences and workshops.

CTE teachers were less likely to support the provisions of the NCLB Act pertaining to the concepts “reducing pressure on school, providing some relief until improvements can be made.” It appears that selected CTE teachers were less than cognizant that the NCLB Act does not reduce local control of schools. Career and technical education students’ level of preparedness was perceived as less than adequate by CTE teachers.

It appears that secondary career and technical education teachers in this study had less than adequate perceptions toward accountability of the NCLB Act. Comments from selected CTE participants suggest that more emphasis should be placed on accountability of students, government, and parents. Overall, career and technical education teachers’ perceptions toward teacher quality and parental choices appeared to be mixed. On the other hand, CTE teachers were more likely to support local control and assessment provisions of the NCLB Act.

Recommendations
Based on the results of this investigation, the following recommendations are offered:

1. A replication of this study should be conducted with a larger sample size.
2. In-service and technical update sessions should be planned to assist teachers with selected provisions of the NCLB Act.
3. Greater emphasis needs to be placed on career and technical education administrators in disseminating NCLB information and explaining its relevance to CTE teachers.
4. Teacher educators and State Department of Education personnel should spend more time to address weaknesses of the NCLB Act as perceived by CTE teachers in this study.
5. A comparative study should be conducted to determine CTE teachers and Academic teachers’ perceptions regarding provisions of the NCLB Act. The nature of this study should also measure effect size and assess the magnitude of the difference(s) between the two groups.

References


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Table 1. Means and Standard Deviations for Statements Regarding Perceptions about the NCLB Act (N=37)
Perception Statement

Teacher Quality:
1. Only career and technical education teachers who teach core academic course are required to meet the definition of a highly qualified teacher. 1.83a 1.14
2. “No child left Behind” shields teachers and officials, including school board members from frivolous lawsuits. 2.05a 1.10
3. The “No Child Left Behind Act” hinders the job of teaching. 3.13a 1.29
4. Professional development programs of the counties prepare teachers to meet the provisions of NCLB. 2.91a 1.08
5. National teacher testing and certification should be required by the State. 3.08b 1.42
6. Perkins funds for the NCLB teacher program (train, recruit, and retain quality teachers) should be used. 3.24b 1.51

Parental Choice and Supplementary Services:
7. Parents of children in low-performing schools are given new options under the “No Child Left Behind Act.” 3.40b 1.03
8. Under “No Child left Behind “, tough measures “kick in” after four years for schools that do not improve after a period of intensive assistance and extra help. 3.40b 1.23
9. In general, the “No Child left Behind Act “is perceived as a means of reducing pressure on struggling schools, providing some relief until improvements can be made. 2.35a 1.03
10. Overall, parental choice and supplemental services are “consequences” for underachieving schools. 2.83a 1.19

Local Control and Flexibility:
11. Increase local control of schools by providing new freedom and decision-making authority to local school districts. 3.59b 0.95
12. The “No Child left Behind Act “reduces local control of schools. 3.67a 1.15

Assessment and Accountability:
13. The State should require mandatory high school assessments. 4.00b 0.91
14. Test data should be reported by race, income, and other criteria. 3.05b 1.52
15. A hallmark of the “No Child left Behind Act “is an accountability mechanism called Adequate Yearly Progress (AYP). All students, including Career and Technical Education students, will be impacted by AYP. To what extent is your vocational school currently using AYP or accountability provisions in Perkins? 3.05c 1.45
16. Are incoming career and technical students better prepared in the basic skills? 2.08c 0.72

Note: Response scales:
a1= strongly disagree; 2 = somewhat disagree; 3 = neither agree nor disagree; 4 = somewhat agree; 5= strongly agree.
b1= strongly oppose; 2 = mildly oppose; 3 = neither oppose nor favor; 4 = mildly favor; 5 = strongly favor.
c1= not sure; 2 = limited extent; 3 = some extent; 4 = much extent; 5 = considerable extent.