An Evolving Set of Values-Based Principles for Career and Technical Education

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ABSTRACT

Career and Technical Education (CTE) in America continues to evolve at both the secondary and postsecondary levels. This evolution of CTE is demonstrated by changing policies and practices that are driven from new legislation and educational reform initiatives. Policies and practices should be based on accepted principles that are derived from a particular philosophic set of values. As CTE haw changed, discussion regarding the principles and philosophy that gives rise and justifies these changes is cant. This article reviews the literature with regards to the evolution of educational philosophy and principles that have guided CTE policies and practices. Historically the congruency between particular philosophic values and extending principles has not been clear. Based on the literature, current trends and legislation, a philosophic view and set of values with extending principles are proposed for CTE.

Introduction

The field of Career and Technical Education (CTE) in the United States has evolved over the past 100 years to serve a variety of populations. The touchstones of this evolution can be seen in the various forms of federal legislations that have been passed over these years to support and develop Career and Technical Education. From the initial Smith-Hughes Act of 1917 that funded vocational education at the secondary education level to the Carl D. Perkins Acts of recent times, one trend is clear: Career and Technical Education is becoming more expansive and inclusive.

The question then becomes: On what basis should Career and Technical Education professionals design, develop and implement appropriate and effective programs in a more expansive and inclusive context? The answer is rooted in the evolving philosophical constructs we hold which give meaning and direction to what we do. The educational philosophy we believe provides a set of values from which we then develop our principles that "… serve as guidelines for program and curriculum construction, evaluation selection of instructional practices, and policy development" (Miller, 1985 p. 5). Such a set of value-based principles should be used as the basis for the development of education policies that then in turn guide our educational practices. However, when examining the principles proposed for vocational or career and technical education over time, the values from which the principles stem are absent and/or ambiguous. This paper's purposes are 1) to classify popularly accepted CTE principles within a values-based construct, and 2) to present new and evolving principles that will aid in keeping CTE a viable and essential element of the American education system.

Historical Evolution

At the turn of the last century, philosophies of education were changing, and the rise of Progressive Education became popular. Educational Progressives viewed the classical traditional academic education based on the Idealist Philosophy that stressed the mastery of facts and training of the mind as inefficient, not motivating, and irrelevant for a growing industrial society (Findlay, 1993). Four tenets of the Progressive Education movement were that 1) the student needs and interests should guide curriculum, 2) student activity rather than rote memorization should be the basis of student learning, 3) social conditions should be included in the purposes of schooling, and 4) a primary objective of schooling should be that it contribute to the solution of social problems (Tozer, Violas and Senese, 1993). These tenets reflected a Pragmatic Philosophy where utility or usefulness and practicality were paramount values.

However, the Progressive camp was split between those who believed in a scientific management or Business Efficiency philosophic construct and those who believed in a social democratic or Democratic Deweyan philosophic construct (Kinchloe, 1999). A great debate was held for the heart and soul of vocational education between Charles Prosser and John Dewey regarding the philosophical basis from which public vocational education should be developed. Prosser promoted the "social efficiency" or "instrumentalist" philosophy that valued a view of appropriate "fit" between certain types of students and certain types of education. The adoption of psychometric or psychological testing at the time gave rise to the idea the certain students were best suited for certain kinds of education. The academically inclined students were best suited for the classic academic curriculum while those who were not, were best suited for the vocational curriculum. Thus, vocational education was best separated from academic education, and its objective was to teach students a vocation. John Dewey promoted the philosophical stance known as Democratic Humanism that opposed dual education tracks. He argued that vocational education was needed for all students rather than for certain students, and its objective was to teach subjects through vocations rather than teach a vocation. Dewey supported the integration of the academic and vocational curricula to affirm the dignity of work, stress problem solving, expand students' views of the world, and create a deep understanding of the role of work in students' lives (Lakes, 1985). Both philosophic views had its supporters but in the end Prosser's views won out.

In 1925 Charles Prosser and C. Allen published *Vocational Education in a Democracy* which contained Prosser's Sixteen Theorems for vocational education. These theorems served as the first published set of principles that served as guidelines for the design, development and implementation of vocational education. This set of principles reflected a Pragmatic philosophy that stressed that "… ideas, when untested in action, are little more than illusion, entertaining, perhaps, but in themselves of no ponderable significance" (Meyer, p. 150, 1975). Imbedded in these theorems are highly utilitarian values and a perspective that supported a separate curriculum from liberal academic education. Kincheloe (1999) commented that it was during this time that public schools were for the first time viewed as a means to prepare students for adult work roles. With an influx of thousands of European immigrant families and a need for skilled workers in

the growing industrial economy, vocational education was established to promote the industrial values of the time. It seemed clear that the principles of vocational education, as expressed in Prosser's theorems, were focused toward providing a trained workforce for the industrial revolution.

As Americans reeled from the economic downturn of the Great Depression and struggled during the 1930's, President Franklin D. Roosevelt appointed the Russell Committee to evaluate the effectiveness of vocational education. In 1938 the Russell Report criticized vocational education's narrowness of perspective and for being too job specific in its programs that caused inflexibility in employment opportunities but still supported the utilitarian principles of vocational education (Grubb, 1978). America's entrance in World War II reenergized vocational education's focus on specialized occupational programs to support the war effort. However Kliebard (1987) noted that in 1945 Charles Prosser promoted the establishment of Life Adjustment Education as a new element connected to vocational education as a result of a study conducted by the U. S. Office of Education entitled "*Vocational Education in the Years Ahead"*. According to Kincheloe (1999) Life Adjustment Education included courses like "Learning to Work", "School and Life Planning", "Preparation for Marriage", and "Growth Toward Maturity" for those students who were not in the college preparatory or vocational tracks. Even though this movement to expand the conceptual boundaries of vocational education was abandoned in the late 1950's, it represented a theoretical broadening of the principles that serve as a basis for our decision about the practice of vocational education. This broadening of role and purpose became even more established with the passage of the Vocational Education Act of 1963.

America's changing economy and social revolution of the 1960's, which included civil rights, women's rights and war on poverty movements, heralded a shift away from the employment needs of business and industry and the primary mission of vocational education to the needs and rights of individual citizens and society as a whole. As noted by Gordon (2003) the intent of the Vocational Education Act of 1963, "… was to ensure that persons of all ages in all communities would have ready access to vocational training or retraining of high quality, suited to their personal needs, interests and abilities … that funds be used for persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program" (pg 84). The values of equity, access and quality were clearly present in this legislation and subsequently were to impact the policies and practices of vocational educational education. The Vocational Education Amendments of 1976 supported efforts to combat gender discrimination and stereotyping in school programs and further advanced these values (Gordon, 2003).

Vocational Education's place on the national education agenda was illustrated by Barlow (1967) when he proposed the following seven overarching principles:

1. Vocational education is a national concern;
2. Vocational education provides for the common defense and promotes the general welfare;

3. Vocational preparation of youth and adults is a public responsibility;
4. Vocational education requires a sound basic education;
5. Vocational education is planned and conducted in close cooperation with business and industry;
6. Vocational education provides the skills and knowledge that are valuable in the labor market; and
7. Vocational education provides continuing education for youth and adults.

Clearly these principles reflected utilitarian values that if adopted helped to shape the policies and practices of the profession.

In 1983, *The Unfinished Agenda: The Role of Vocational Education in the High School* was published by the National Commission on Secondary Vocational Education. This report has been cited by many scholars as a catalyst for the reform of vocational education. The report argued that the American school system was one of the major causes of the decline of our nation's ability to compete in a global economy. Imbedded in this publication were statements that promoted the expansion of the principles of vocational education. For example in the "Introduction" the statement was made, "In this report we argue for a more balanced approach to attaining excellence in secondary schools. All students whether college bound or not, need a mix of both academic and vocational courses …" (pg 2). With this statement the Commission clearly established a position that was more congruent with the social democratic values John Dewey had promoted at the turn of the century. Moreover the case was made for the process of vocational education being valuable in its variety of learning formats, focus on problem solving and analytical skill development. Vocational education's real world contextualization of learning brought relevance to academic knowledge. The report also identified articulation as a problem area. The Committee wrote, "We need close collaboration and planning across all educational levels" (p. 17) including secondary with post-secondary levels. Clearly *The Unfinished Agenda* continued the movement to expand the scope of vocational education via its recommendations for change. These recommended changes of practices meant changes of policies which then meant changes of principles. Even though theoretically the change process should start from our principles and produce change in policy and in turn change in practice, in reality sometimes the change process is reversed and changes in practice drive changes in policy which should in turn change our principles.

In 1985 Melvin Miller wrote *Principles and Philosophy for Vocational Education*. Within this publication a set of principles was presented based upon pragmatic philosophy. Miller wrote, "The pragmatist's philosophy stresses the changeability of things and the development of new truth, with all of its own tentativeness." (pg. 236). He pointed out that principles were a "reflection of circumstances, thinking, and needs specific to a time in history" (pg. 19). Miller's framework was an important contribution towards the adoption of a guiding set of principles from which to develop policies and practices for the field at that time. His framework was one that focused upon the categories of people, programs, and processes.

Underneath this construct Miller described 25 topics from which distinct principles were proposed. These categories and topics are as follows,

People Principles

- Guidance
- Life-long learning
- Needs open to all
- Placement
- Sex bias/stereotyping
- Special needs
- Student organizations
- Teachers
- Work ethics

Programs Principles

- Career and prevocational education
- Comprehensive education
- Curriculum
- Families and occupations
- Innovation
- Job entry
- Safety
- Supervised Occupational Experience

Process Prinicples

- Advice seeking
- Articulation
- Coordination
- Evaluation
- Follow-up
- Legislation
- Planning
- Research.

Scott and Sarkees-Wircenski (2004) commented that Miller's principles were a reflection of "…successful practices of the past and include reinterpretation of long-standing principles to address the challenges confronting career and technical education today" (p. 395).

The 1990's was a decade of education reform. A number of studies and reports were published that brought into question the purposes, structures and roles of vocational education. Reports such as the National Center on Education and the Economy's Commission on the Skills of the American Workforce's *American's Choice: High Skills or Low Wages* (1990), the United States Department of Labor's *What Work Requires of*

Schools: SCANS Report for America 2000 (1991), and the Council of Chief State School Officers with the American Youth Policy Forum's *Building a System to Connect School and Employment* (1994) stimulated rethinking the fundamental purposes and operational structures of vocational education. Federal legislation such as the Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990, the Educate America Act of 1994, the School-to-Work Opportunities Act of 1994, the Workforce Investment Act of 1998, and the reauthorized Perkins Act of 1998 called for a strengthening of standards and greater articulations, collaborations and connections between vocational education, academic education, and private sector business and industry for both secondary and adult populations. This decade was a time of setting new directions, and creating new models and visions for career and technical education (Scott and Sarkees-Wircenski, 2004).

The changes of the 1990's set the stage for a reconceptualization of what career and technical education should be for the 21st century. Lynch (2000) proposed designs for CTE that emphasized early career exploration and planning, increased integration of academic and technical learning in strengthen academic achievement, more generic work knowledge and skills, and preparation of high school students for post-secondary and lifelong learning. Additionally it was recommended that curriculum be organized around occupational majors such as in career academies, contextualized learning and instruction be utilized, work-based learning experiences and the use of authentic assessment be increased, and there be a more expansive implementation of the Tech Prep program model.

Copa and Wolff (2002) presented a set of 13 guiding principles as part of their effort to develop new guidelines for policy and practice in secondary and post-secondary career and technical education, however, a descriptive framework was not provided to identify the foundations or assist in the interpretation of this set of principles. A content analysis showed that this set of principles had roots in Barlow's work and was similar to Miller's framework in that many of the principles could be categorized under a people, programs or processes construct, however, some principles clearly stemmed from specific values that had been part of previous federal legislation. Below are Copa and Wolff's principles, organized underneath Miller's categories with an additional value-based category,

People

- Individual and nation – Career and technical education serves the needs and interests of individuals and the nation as a whole
- Work, family and community – Career and technical education places high worth and importance on work, family and community roles and responsibilities and their interrelationship in contributing to quality of life and the human endeavor
- Learner-centeredness - Career and technical education provides learning and support services that are personalized to the needs of the learner
- Lifelong opportunity – Career and technical education provides learning opportunities across the lifespan

Programs

- Innovation – Career and technical education is innovative and creative in providing learning services
- Adding value – Career and technical education adds value to the comprehensive educational enterprise in the Unites States by providing learning for work, family and community roles and responsibilities

Processes

- Futuristic orientation – Career and technical education orients to the future needs of work, family and community roles and responsibilities
- Collaboration – Career and technical education seeks opportunities to work with other organizations and agencies to improve learning
- Integration – Career and technical education blends with and makes contributions to other dimensions of education and support services

Values

- Inclusiveness – Career and technical education includes all learners who can benefit
- Accessibility – Career and technical education strives to have no barriers to its learning services
- Quality – Career and technical education uses high learning standards and continuous quality improvement
- Diversity – Career and technical education advocates for and responds to diversity in learners and staff.

Most recently the enactment of the Carl D. Perkins Career and Technical Education Improvement Act of 2006 has continued recent trends and established new directions for secondary and postsecondary programs. Upon examination of the purposes of the Act it is clear that particular themes are emphasized. These themes include: 1) the development of both academic and technical standards to prepare students for high-skill, high-wage, and high demand careers; 2) the integration of academic and technical education that fosters greater articulation between secondary and post-secondary Career and Technical Education programs; 3) increasing state and local flexibility in planning, developing and implementing programs; 4) support for national research and dissemination of best practices in Career and Technical Education; 5) support for leadership and professional development technical assistance for both secondary and post-secondary school personnel; 6) increasing stakeholder partnerships that include baccalaureate granting institutions of higher education; and 7) support for lifelong learning opportunities that strengthen America's workforce to be competitive in the global economy (Association for Career and Technical Education, 2006).

An important change in the new 2006 Perkins Act is the definition of Career and Technical Education. Previous federal definitions of Vocational and Technical Education clearly stated that such education was at the prebaccalaureate level. The new definition

of Career and Technical Education imposes no such restriction thus allowing for inclusion of programs that lead to careers that require a baccalaureate degree. (Association for Career and Technical Education, 2006)

Another important element of the 2006 Perkins Act is the emphasis on accountability. Provisions are included that require greater documentation of positive outcomes using established performance measures at both the state and local levels. Additionally at both the secondary and post-secondary levels core performance indicators are required to measure academic and technical skill progress and proficiency. (Association for Career and Technical Education, 2006)

As proposed at the outset of this essay, principles should be based on particular values that are an integral part of a guiding philosophical view. Copa and Wolff's set of principles begins to articulate certain values from which principles are developed. The works of Prosser and Allen (1925), Barlow (1967), and Miller (1985) did not clearly articulate the values upon which their principles rested. Legislation such as the various Perkins Acts has particular values imbedded in the provisions of the law. Based upon the important work that has been done by many scholars in our field, many who are cited above, the following framework is offered as another step in the evolution of principles for Career and Technical Education.

Philosophic Construct

This author promotes the democratic utilitarian experiential values of Pragmatism in harmony with the values of Humanism as the basis for the principles for Career and Technical Education. The interlacing of these two philosophic constructs can be seen when the following fundamental questions are asked:

- What is true? – The human experience which is in a constant state of change;
- What is good? – What is useful for human beings and allows for self actualization; and
- What is right? - Democratic ideals and the values of freedom, justice, and self worth.

If one accepts the Pragmatic Humanist philosophic view, then the next task is to explore the fundamental values that should be used as touchstones to guide the development of principles. A qualitative thematic analysis of the aforementioned historical principles and legislative trends that have served to guide Career and Technical (Vocational) Education yielded the following proposed set of core values for CTE:

- Accessibility;
- Accountability;
- Equity;
- Learning;
- Usefulness; and
- Safety.

If one accepts the aforementioned core values then principles can be appropriately categorized and developed underneath each value from which policies for Career and Technical Education can then be developed. Based on the historical works cited in this

article, and the emerging contemporary trends of the field, the following are proposed as a set of principles for Career and Technical Education:

Accessibility Based Principles

- Career and Technical Education should be open to all;
- Career and Technical Education should be part of the public system of comprehensive education;
- Articulation and coordination of programs are central to the purposes of Career and Technical Education;
- Career awareness and investigation are essential components of Career and Technical Education;
- Career guidance and counseling are essential components of Career and Technical Education;

Accountability Based Principles

- Career and Technical Education must be accountable to its constituents and stakeholders;
- The needs of the community should be reflected in programs of Career and Technical Education;
- Advice from the community is sought in providing programs for Career and Technical Education;
- Curricula for Career and Technical Education are derived from requirements in the global workplace;
- Job entry, advancement and/or higher education are the results of Career and Technical Education;
- Research must be conducted on a continual basis to inform the progress of Career and Technical Education;
- Job placement service is a responsibility of Career and Technical Education;
- Follow-Up is a vital extension of Career and Technical Education;

Equity Based Principles

- Individuals with special needs are served through Career and Technical Education;
- Elimination of gender bias and stereotyping is promoted through Career and Technical Education;
- Diverse students and perspectives are beneficial for Career and Technical Education;

Learning Based Principles

- Lifelong learning is promoted through Career and Technical Education;
- Leadership development is an integral feature of Career and Technical Education;
- Critical contextual and experiential learning are at the constructive pedagogical roots of Career and Technical Education;
- Career and Technical Education Curriculum is competency-based;
- Supervised occupational experience is provided through Career and Technical Education;

- Formative and summative evaluation is a continuous process in Career and Technical Education;
- Teachers of Career and Technical Education are both professionally and occupationally prepared;

Usefulness Based Principles

- Comprehensive planning is required in Career and Technical Education;
- Innovation is stressed in Career and Technical Education;
- Federal legislation for Career and Technical Education is a reflection of national priorities and provides program direction;
- A positive work ethic is promoted through Career and Technical Education;
- Families of occupations are the basis for developing curricula for Career and Technical Education at all levels;
- Continuous update and improvement are hallmarks of Career and Technical Education;

Safety Based Principle

- Physical, psychological and emotional safety is paramount in Career and Technical Education.

The Advantage of a Value-Based Construct

One may say that the proposed construct is simply a reorganization of notions that have been evident in Career and Technical Education for some time. The manner in which notions or ideas are perceived is important to the understanding of how these ideas can be applied in everyday life. When focusing on the values at the basis of particular principles, very compelling arguments can be made for the justification, adoption and implementation of particular strategies.

For example, when making curricular decisions the essential question is: On what basis is a particular content justified to be included in the program of study? If we agree that content should be useful, then we have a value-based criterion from which to begin to make decisions for the inclusion or exclusion of information. Thus, if we deem that the learning of a positive work ethic is useful for students in Career and Technical Education, then we have a defensible position from which to argue for the inclusion of such content. Without identifying the value from which the learning of a positive work ethic stems, then the justification for its inclusion in the curriculum can be strongly questioned. By clearly establishing the congruency between individual guiding principles and particular values Career and Technical Education can be confident of a strong defensible position to promote and adopt curricula, implement strategies and utilize particular instructional designs that will be effective for the demands of our times.

Evolving Principles

This author believes it is important to note that several principles indicated above have evolved from previously adopted principles, some remain essentially the same, and others are totally new proposed principles for Career and Technical Education. For example, underneath the value of Accessibility, the principles that refer to guidance and counseling have roots in the 1960's. Underneath the value of Equity, the principle that addresses the elimination of gender bias was brought to the forefront in the 1970's. The promotion of a lifelong learning principle was popularly adopted in the 1980's. The Accountability based principle framed by the global workplace is relatively recent beginning in the 1990's. The principle to view the development of Career and Technical Education programs stemming from a family of occupations underneath the value of Usefulness is a new principle based on currently held perspectives. The evolution of guiding principles should be recognized and utilized by the Career and Technical Education profession to assist in current program planning and implementation.

Final Thoughts

The importance of having a set of principles based on an identified value–based philosophic construct and on which to base the development of polices and practices is essential for any educational endeavor. Such a construct allows one to defend practices and policies should they be called into question. Scholars have recently observed that such considerations are needed as we enter the 21st century for Career and Technical Education. Camp and Johnson (2005) noted the following regarding contemporary Career and Technical Education (CTE),

> "… CTE programs are becoming more academically rigorous and less directly tied to single occupations. CTE is no longer just a training program for workers; today CTE also prepares students for postsecondary work including college as well as lifelong learning. CTE does not replace academic subjects, but rather reinforces academic instruction by incorporating basic academic instruction in a purposeful way into CTE courses. CTE provides meaningful contexts in which students can apply the concepts they learn in academic classrooms in settings that help them to see the real-world relevance of what might otherwise be abstract concepts … what this discussion does not address is a set of guiding principles … (p. 55-56)

This proposed set of valued-based guiding principles for Career and Technical Education is not intended to be definitive or exclusive. Rather it is intended as a vehicle for opening a discussion that will allow researchers, policy makers and practitioners to add their thoughts and ideas. Such an evolving construct can serve as a foundation to base efforts to conceptualize, develop, and implement the strongest most useful and humane Career and Technical Education programs possible. Let the discussion continue.

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