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Curriculum Leadership: New Trends and Career and Technical Education

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ABSTRACT

As an educational leader, in selecting a curriculum we must know our success as a knowledge-based economy will depend on how well schools equip young people with competencies the future will require, says Prof Geoff Masters. Within the school sector, efforts are being made at many levels - from classroom teachers to system managers - to enhance the quality of children's learning experiences and to ensure that all students receive the best education America can provide. For educational leaders these efforts to improve school education depend on access to relevant, reliable and timely feedback on educational outcomes for students. In school education, outcomes are measured not only in terms of academic achievement, but also in terms of access to, participation in and completion of schooling. It can also be gauged in terms of preparation for, and successful transition into, future study and employment (Masters, 2002). This article examines the most recent educational curriculum trends that should be considered in the planning, design, and modernization of schools and the direction of Career Technical Education and how it can be used in renewing obsolete curriculum. The trends were identified by reviewing research on the relationship of school facilities to student outcomes, by performing a general environmental scan of current trends, issues, problems, and initiatives in education, and by reviewing demographic patterns emerging out of the Education Longitudinal Study 2002 (ELS, 2004).

Introduction

Modern education has evolved well past the traditional conception of knowledge as a set of data to be memorized, revised, and recited by rote. Nonetheless, while today's model of education is based on learning as a process of knowledge construction and critical thinking, we still have some way to go before we perfect the practical integration of content and process to engage students, particularly in the middle years of schooling, in every aspect of their education (Wilks, 2005). Educators designing a thinking curriculum should focus on teaching students skills not in discrete elements or subject areas, but as whole tasks with purpose, relevance and interest outside the requirements of achieving a passing grade (Wilks,2005). The ideal would be to avoid the dreaded student question, 'Why are we doing this?' The thinking curriculum should inspire students' self-motivated learning and equip them with cross-discipline skills in problem solving, self-monitoring, reading, and study strategies and critical thinking (Wilks, 2005).

Purpose of the Article

The purpose of this article is to examine the most recent curriculum Leadership trends that should be considered in the planning, design, and modernization of schools and the direction of Career Technical Education and how it can be used in renewing obsolete curriculum and inspire students to become self motivated and equipped for the twenty first century high tech job market. The trends were identified by reviewing research on the relationship of school facilities to student outcomes, by performing a general environmental scan of current trends, issues, problems, and initiatives in education, and by reviewing demographic patterns emerging out of the Education Longitudinal Study 2002 (ELS, 2004). Our success as a knowledge-based economy will depend on how well schools equip young people with competencies the future will require, says Prof Geoff Masters.

In the United States, formal vocational education in schools began early in the 20th century with roots in the traditional techniques of preparing young individuals for work. In the last hundred years, vocational education has evolved from its original inception in response to changes in society, technology, education and educational philosophy, and the workplace.

History of Career Technical Education

At the dawn of the 21st century, vocational, or career and technical, education goes far beyond the specific technical knowledge and skills required for a particular occupation; today, vocational education encompasses not only technical preparation but also sound academic foundations, higher-order thinking skills, and personal qualities needed for success in the workplace. Barlow (1976) described traditional preparation for work before the establishment of school-based vocational education in these words:

Turning our attention back 200 years to 1776, we find three ways in which a person prepared for work. The first was organized apprenticeship. This was generally pretty good. The two types-voluntary and involuntary-provided apprentices, whether boys or girls, with five basic elements: (1) food, clothing, and shelter; (2) religious instruction; (3) general education (3 R's); (4) instruction in a trade or occupation; and (5) the mysteries of the trade (related subjects). Involuntary apprenticeship provided a neat way for towns to take care of their child welfare cases (particularly in the earlier Colonial period). A second way of preparing for work was in a mother-daughter, or father-son relationship in which the fundamentals of a trade or occupation were taught to children in the family. This process is as old as time. The third was the pick-up method, by observation and imitation, but with little actual instruction. A sharp boy or girl, bent upon learning a trade could ultimately pick-up the essential information needed to begin. Experience at doing the task finally made him a craftsman. Vocational education, as we know it today, is strictly a 20th century invention (Miller, 1985). He characterized public education in the United States at the turn of the 20th century as ill suited and unattractive to the great majority of young people who needed, but did not receive, preparation for work. Schools in the first decade of the 20th century largely held to the elements of a so-called liberal education. Preparation for college was the intended outcome-an outcome serving fewer than 10 percent of the population. Liberal

education was not concerned with making efficient producers, although it did indirectly contribute to that end; rather, it concerned itself with consuming (Snedden, 1910).

Responsibilities as Educational Leader

As educational leaders, we have an obligation to identify evolving attitudes and practices and to try our best to understand how they might affect the physical settings we use for learning. Historically, education has played a major role in shaping the lives of all individuals. Curriculum theory has continually evolved and, there has always been a battle to improve and expand the curriculum (English & Larson, 1997). Several critical issues plague educators today “Which curriculum should we follow?” and “What knowledge is of most worth?” There are a multitude of curriculum theories that help educators understand the concept of student learning and achievement. Within the school sector, efforts are being made at many levels from classroom teachers to system managers to enhance the quality of children's learning experiences and to ensure that all students receive the best education America can provide (Masters, 2002).

Leader Developing Curriculum for Multicultural Constituents

As the public sector becomes more sophisticated, as well as impatient, questions that are more critical are being asked and limitations that are more stringent will be placed on institutions of education. These concerns are appearing at a time of economic recession, a decline with college enrollment, conflict between religions and ethnic groups and a continuous debate on the core curriculum to develop quality education. In fact, after almost two decades of school reform efforts in America, there are still millions of children being left behind. Specifically, in the Texas Public Schools Statistic (1999), it indicates that African American students comprised 18.7% of dropouts while Hispanic Americans made up 51.3%. According to research, one reason for this failure is due to the quality of leadership. Leadership is a vital component in achieving quality education for all children (Wallace-Reader's Digest, 2000; Astin & Astin, 2000). Institutions of education play a major role in developing and shaping the quality of leadership in modern American society (Astin & Astin, 2000). Accepting the premise that education is the pipeline for developing productive citizens, academia must take the opportunity to lead the way and demonstrate to the rest of the nation how to accept and nurture a diverse community of leaders (Masters, 2002). There is a critical need for educational leaders to develop a keen understanding of the challenges faced by students. The goal of reducing the dropout rate is to increase the percentage of youths who complete a high school education. Despite the increased importance of a high school education for entry to postsecondary education and the labor market, the high school completion rate has shown limited gains over the last three decades and has been stable (NCES, 2004).

What is Curriculum Leadership?

From a historical perspective, curriculum is any document or plan that exists in a school or school system that defines the work of teachers. This article attempts to assist educational leaders in curriculum leadership by identifying trends in material to be taught. Many work plans may consist of textbooks, resource materials, or scope and sequence charts. By definition “The purpose of a curriculum is not to abandon organizational boundaries but to enable the organization to function within those boundaries more effectively and, over time more efficiently” (English and Larson, 1997).

A curriculum can accomplish these goals by: (1) clarifying organizational boundaries; (2) defining the nature of the work to be done; (3) relating the major tasks to be accomplished to one another within the total work process or work flow (coordination); (4) defining standards by which work is to be measured or assessed; (5) defining evaluation procedures by which work results can be compared to work performed; (6) making changes in the work performed through feedback; and (7) repeating the above steps in order to achieve a higher level of work performance on a consistent basis. (Larson and English, 1997)

The need to revise or eliminate obsolete curriculum and develop new programs to meet emerging work or family trends is a seemingly endless occurrence; but, what should drive the changes and modifications made to curriculum and should we continue such programs, which include Career and Technical Education (CTE) programs? In today’s highly technical work force, training is a key factor for success in the 21st century job market. Even more basic, what is the essential purpose of Career and Technical Education programs in an increasingly global economy requiring highly skilled and highly educated workers? Is Career and Technical Education, as Prosser, Snedden and others argued nearly a century ago, solely a means for preparing young people for specific types of work, or, as Dewey posited, a means of academic education for living in a democratic society? Do purposes differ at secondary and postsecondary levels? Where is career and technical education headed in the near future? (Rojewski, 2002). The Carl D. Perkins Vocational and Technical Education Act of 1998 were designed to improve vocational at both the secondary and postsecondary levels. For postsecondary occupational education, the Perkins legislation focuses particularly at the sub-baccalaureate level. The legislation requires institutions to measure and evaluate student outcomes. According to Lévesque (2000), an important factor to understand is whether students in occupational programs persist in postsecondary education and attain degrees at rates similar to their academic peers. Norton (1983) stated, “The primary goal of Career Technical Education has been, and continues to be, the preparation of individuals for meaningful employment.” He also noted that to achieve this goal, Career Technical Education must reflect actual employment needs in both type and level of Employment. “Career Technical Education” is defined as meaning that instruction not necessarily leading to a Baccalaureate degree (Norton,1983). Career Technical Education programs should have a social and economic value for every student by leading to a successful career, assist in establishing and preparing for the goals of an

individual, and enhance productivity and earnings. They are also essential for economic development and the changing work force (Chapter 228 Section 22 of the Florida School Law Journal).

Keeping in Step with Current Educational Curriculum

According to Dr. Stevenson, there are ten educational trends to consider when selecting educational curriculum for the 21st century. They are:

Trend 1: The Lines of Prescribed Attendance Areas Will Blur

Public education has been the only choice for most children and planning for school enrollment has been relatively easy during the past fifty years. Based on the premise that schools have fixed geographic boundaries, planners used demographics to determine the number of students residing within each boundary (Stevenson, EdD, 2000).

Trend 2: Schools Will Be Smaller and More Neighborhood Oriented

The educational literature abounds with articles touting the virtues of small neighborhood schools (Cotton 2001; Raywid 1998; Vander Ark 2002). In Florida, for example, policy makers have mandated much smaller maximum school sizes than typical of today's schools. It is not inconceivable that within the next twenty-five years, we will see elementary schools housing an average of 200 students, middle schools with no more than 400 to 500 students, and high schools averaging 500 to 750 students (Stevenson, EdD, 2000).

Trend 3: There Will Be Fewer Students per Class

The current interest in reducing class size will remain high for the near future (Biddle 2002). Results from research such as the STAR (Student-Teacher Achievement Ratio) Project, which was authorized by the Tennessee legislature in 1985, continue to drive down teacher-pupil ratios (Achilles, 1996).

Trend 4: Technology Will Dominate Instructional Delivery

Schools will be more neighborhood-oriented and thereby, more numerous and because teacher-pupil ratios will be reduced, educational costs will grow. However, the aging voter base will be more reluctant to support such increases, so school districts will have to look for ways to control education costs. One way will be through distance education (Clark, 2001).

Trend 5: The Typical Spaces Thought to Constitute a School May Change

Very different scenarios may affect what spaces school districts will include in future building designs (Butin, 2000). One view of the future suggests teaching will become more basic, citing the current emphasis on school accountability as measured by test scores. This scenario maintains that as schools become increasingly focused on producing good scores on standardized achievement tests, their curriculums will change. Schools will require students having academic difficulties to take specific additional courses in their

problem areas. Rather than taking art as an elective, for example, a student may be required to take a second course in math to bolster performance on required state or national tests (Stevenson, EdD, 2000).

Trend 6: Students and Teachers Will Be Organized Differently

Students have traditionally been placed in a classroom as much to create a balance of class size for teachers as anything else. However, students are increasingly being grouped by learning and teaching styles. This trend toward matching instruction to learning styles may affect facilities design in two different ways. On the one hand, students in schools of the future may be assigned to a particular classroom because its design best supports how those students learn. Schools built this way may have very different kinds of classrooms on the same hallway (Stevenson, EdD, 2000).

Another possibility is that entire schools will be designed for students with particular learning styles. For example, students who are visual learners would attend a school specifically designed to support this learning style. Students who are kinesthetic learners would attend a school designed to allow them to learn through activity and movement. Regardless of which of these possibilities emerges, the critical point for planners is that the one-size-fits-all classroom model is disappearing (Stevenson, EdD, 2000).

Trend 7: Students Will Spend More Time in School

The amount of time spent in school will continue to expand. In an attempt to meet the demands that policy makers and society place on education, the school day will lengthen and the school year will grow to approach 240 days from its present average of approximately 180 days (Lackney, 1999). When the buildings are not used for traditional school functions, they will be serving the greater community, often during evenings and weekends. Since school buildings will receive far greater use, their materials and equipment will need to be more durable and easily maintained or replaced (Stevenson, EdD, 2000).

Trend 8: Instructional Materials Will Evolve

Paper as we know it may largely disappear from the classroom. Many reference materials, including journals and magazines, will be available in digital form on CDs and DVDs or via the Internet (Simon 2001). As a result, such things as the adequacy of electrical service, the number of Internet connections, type and configuration of local and wide area computer networks, and the size and design of spaces, such as the school library, will be more important than ever (Stevenson, EdD, 2000).

Trend 9: Grade Configurations Will Change

Schools of the future will be designed to accommodate emerging findings about when and where students learn best. For example, there is substantial research indicating that each transition or school change a student makes has a negative effect on learning (Renchler, 2000).

Trend 10: Schools Will Disappear Before the End of the 21st Century (Or Will They?)

The previous trends suggest how school facilities may be different in the future. Though the possibility may be remote, another scenario exists in schools, as we know them, will disappear (Northwest Educational Technology Consortium 2002). The idea sounds fantastic at first, but if one thinks about the combination of the rapid development of technology and the increasing lack of confidence parents have in public education, the disappearance of the brick and mortar structure called school is possible (Stevenson, EdD, 2000).

Some trends may prevail; others, may not. What is important is not so much an awareness of a particular trend, but knowing what trends will likely affect a particular school or district. Trends vary in different parts of the country and among communities in the same area. Imagine two contiguous school systems where schools might look quite different. In one community, constituents may decide that small neighborhood schools are necessary and therefore worthy of the fundraising needed to build them. In the other, taxpayer reluctance to support schools may mandate that schools be larger. The key to providing school facilities that meet current and future needs in a given community is to constantly scan the environment, communicate regularly with educators, the community, businesses, and policy makers, and stay aware of current educational, design, and environmental issues. Otherwise, reliance on “It’s always worked in the past,” or on “That’s how it has always been done” may well result in the waste of limited capital dollars, dissatisfaction in the community, and reduced opportunities (Astin & Astin, 2000).

A Major Critical issue for Leaders

One of the major problems facing educational leaders today is the low graduation rate from high school, and the inability of those non-graduates to find meaningful employment in the high tech work place of today. Educators need to find a way to keep students in school while providing a meaningful education that will lead to graduation and a career that offers a living wage.

It has been suggested that educators need to have an understanding of the relationship between at risk youth work values and their Career Technical education development, as our values play an important role in our career decisions and social choices (Just, 1985). Career Technical Education in schools and juvenile institutions has also recently been emphasized as an important component in enabling juvenile delinquents to grow into productive adults (Feyes-Mendoza & Rutherford, 1987; Haberman & Quinn, 1986; Platt, 1986). A 2004 survey published by the John J. Heldrich Center for Workplace Development at Rutgers University revealed that nearly one in five American workers was laid off from work between 2001 and 2004. Meanwhile, something curious is going on. Many United States industries say that they are having a hard time finding workers. Some 57 percent of companies with 100 or more employees said it was hard to find workers with the required skills (Heldrich, 2004).

A Mandate to Educational Leaders

The Government has requested various researchers from across the country to examine existing longitudinal (ELS, 2004) data to alleviate current research gaps; Consequently, base year student data files from the 2002 Education Longitudinal Study (ELS, 2004) will be analyzed to identify relationships between computer skills, School to Work programs and Career Technical Education and the dropout rate. The American Educational Research Association (AERA), a national research society, which strives to advance knowledge about education, to encourage scholarly inquiry related to education, and to promote the use of research to improve education and serve the public good. Various programs such AERA Program are the recipients of six successive grants from the National Science Foundation (NSF), with an interagency agreement from the National Center for Education Statistics (NCES) of the Institute of Education Sciences. The goals of the programs are to enhance the capability of the research community to use large-scale data sets to conduct studies that are relevant to education policy and practice, and to strengthen communications between the educational research community and government agencies.

Concluding Remarks

In conclusion, the need for the multicultural American skilled worker to be included in a curriculum and the need to develop new programs to meet emerging work and family trends is a seemingly endless occurrence. Educational leaders need curriculum modules and curriculum research to provide the greatest chance for success. By using current trend information educational leaders will become more equipped to tackle this critical issue.

By using Career technical education in the past America has resolved this issue. Educational Leaders ability to enable student success and the ability to accommodate the needs in the ever changing 21century job market is essential. Knowing what drives these changes and modifications made to the curriculum is vital through research. Keeping students in school until they gain skills necessary for employment and further education is critical; therefore, research and design modules for leaders relative to practical curriculum programs are long overdue.

References

- Achilles, C. M. (1996). Students achieve more in smaller classes. *Educational Leadership*, 53(5), 76-77.
- Astin, A.W., Astin, H.S., and Associates (2000). *Leadership reconsidered: Engaging higher education in social change*. Ann Arbor, MI: W.K. Kellogg Foundation.
- Banks, J.A. (1993). Multicultural education: Development, dimensions, and challenges. *Phi Delta Kappan*, 75(1), 22-28.
- Biddle, B. J. & Berliner, D. C. (2002). Small class size and its effects. *Educational Leadership*, 59(5), 12-22.
- Butin, D. (2000). *Classrooms*. Washington, DC: National Clearinghouse for Educational Facilities Retrieved July 7, 2007, from <http://www.edfacilities.org/pubs/classroom.pdf>

- Chan, T. C. (1996). *Environmental impact on student learning*. Valdosta, GA.: Valdosta State College.
- Clark, T. (2001). *Virtual schools: Trends and issues*. Phoenix, AZ: WestEd/Distance Learning
- Cotton, K. (2001). *New small learning communities: Findings from recent literature*. Retrieved July 7, 2007, from the Northwest Regional Educational Laboratory Website:
http://www3.scasd.org/small_schools/nlsc.pdf
- Inger, M. (1993). Using data for program improvement: How do we encourage schools to do it? *Centerfocus*, 12. Retrieved July 8, 2007, from
<http://nerve.Berkley.edu/Centerfocus/CF12.html>
- Katino, M.K. (1997). What a course will look like after multicultural change. In A.I. Morey and M.K. Kitano (Eds.). *Multicultural course transformation in higher education: A broader truth* (pp.18-34). Needham Heights, MA: Allyn and Bacon.
- Lackney, J. A. (1999). *Reading a school building like a book: The influence of the physical school setting on learning and literacy*. Jackson, MS.: Educational Design Institute, Mississippi State University.
- Larson ,R. & English, F. (1997). *Curriculum management for education and social services*. Springfield, IL: Charles Thomas Publisher 57-59.
- Lewis, T. (1997). Towards a liberal vocational education. *Journal of Philosophy of Education* 31(3), 477-489.
- Lewis, T. (1998). *Toward the 21st century: Retrospect, prospect for American Vocationalism. information*. (Series No. 373). Columbus, OH: ERIC Clearinghouse on Adult, Career and Vocational Education, Ohio State University,
- Lynch, R. L. (2000). *New directions for high school career and technical education in the 21st century*. (Information Series No. 384). Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education, Ohio State University.
- Marshall, F. (1907 October). *Industrial training for women*. (Bulletin No. 4). New York: National Society for the Promotion of Industrial Education.
- Masters, G. (2002). Curriculum leadership promises and challenges. *Inform*, 5(8), 30–31.
- Miller, M. D (1985). *Principles and a philosophy for vocational education*. (Special Publication Series No. 48). Columbus, OH: National Center for Research in Vocational Education, Ohio State University,. (ERIC Document Reproduction Service No. ED 250 497).
- Nathan, J. (2002). A charter school decade. *Education Week*, 21(38), 32-35.
- National Association of State Directors of Career Technical Education Consortium. *Career technical education: An essential component of the total educational system*. Washington, DC: NASDCTE.
- National Center for Education Statistics (2000). *Vocational education in the United States: Toward the year 2000* (Statistical Analysis Report). Washington, D.C.: United States Department of Education.
- National Commission on Excellence in Education (1983). *A nation at risk: The imperative for reform*. Washington, DC: NCEE, (ERIC Document Reproduction Service No. ED 226 006).
- National Commission on Secondary Vocational Education(1984). *The unfinished agenda: The role of vocational education in the high school*. Columbus, OH: National Center for Research in Vocational Education, Ohio State University.
- Northwest Educational Technology Consortium (2002). *Virtual schools: What do educational leaders need to know?* Paper presented at the 2002 NCCE Conference, Seattle, WA. Retrieved July 7, 2007, from <http://www.netc.org/presentations/ncee/2002/nccenotes.pdf>

- Prosser, C. A. (1913 May). The meaning of industrial education.vocational. *Education*, 401-410.
- Prosser, C. A., & Allen, C. R. (1925). *Vocational education in a democracy*. New York: Century.
- Raywid, M. A. (1998). Small schools: A reform that works. *Educational Leadership*, 55(4), 34–39.
- Renchler, R. (2000). Grade span. ERIC Research Roundup 16(3). Retrieved July 7, 2007, from <http://eric.uoregon.edu/publications/roundup/S00.html>
- Rojewski, J. W. (2002). *Preparing the workforce for tomorrow: A framework for career and technical education?* (Statistical Analysis Report). Washington, DC: United States Department of Education.
- Simon, E.. J. (2001). *Electronic books: A pilot study of student e-reading habits*. Retrieved July 10, 2007, from <http://www.futureprint.kent.edu/articles/simmon01.html>
- Snedden, D. (1910). *The problem of vocational education*. Boston, MA: Houghton Mifflin.
- Stevenson, K.R. (2000). *Ten educational trends:Shaping school planning and design*. National Clearinghouse for Educational Facilities.
- Swanson, J. C. (1951). *Development of federal legislation for vocational education*. Chicago, IL: American Technical Society,
- U.S. Department of Labor (1968). *Trends in educational attainment of women*. Washington, DC: U.S. Government Printing Office.
- Vander Ark, T. (2002). The case for small high schools. *Educational Leadership*, 59(5), 55–59.
- Vocational Education Act of 1963, Public Law 88-210* (n.d.). Washington, DC: U.S. Congress.
- Vocational Education Amendments of 1968, Public Law 90-576* (1968). Washington, DC: U.S. Congress. (ERIC Document Reproduction Service No. ED 039 352)
- Wilber, K. (1998). *The marriage of sense and soul: Integrating science and religion*. New York: Random House.
- Wilks, S. (2005). (Ed). *Designing a thinking curriculum*. Melbourne, Australia: ACER Press.