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ABSTRACT

Vocational education for tomorrow must be an educational delivery system rather than a subject-matter content area. It must blend and interrelate the various areas to provide core competencies, employment skills, and employability skills in a truly integrated and comprehensive educational program. Academic and vocational education must not be placed in conflict with one another; rather, the secondary vocational curriculum should be redesigned in such a way as to allow for the extrapolation of academic competencies from the vocational curriculum. What is needed is an integrated curriculum approach focusing on the development of academic skills in an applied setting. The regional area vocational school is particularly suited to such a curriculum. Whether offered at a comprehensive high school or area vocational school, vocational education must place more emphasis on codeveloping programs with local businesses and preparing students for the inevitable retraining that they will need throughout their working lives as the relentless pace of high technology reshapes the labor market every 5 to 10 years. Because vocational education is not a training program but rather an educational program preparing students to set the direction of their own lives and careers, it must integrate the job skills currently sought by employers with sound training in the basic skills, including technological literacy and career development skills. (MN)

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SECONDARY VOCATIONAL EDUCATION

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1986

FOREWORD

Secondary education has been the object of an incredible amount of scrutiny and criticism in recent years. Studies have documented the increasingly weak academic preparation of our students and the unacceptably high dropout rate. Many states have responded by raising the number of academic courses required for graduation. There is some evidence that increasing academic requirements lessens student participation in vocational education. Since we know that participation in a significant amount of job-specific vocational education decreases the likelihood of dropping out, this appears to be a questionable strategy. Furthermore, this seems to be a quantitative approach to a qualitative problem. Basic skills can be taught in many different settings including vocational education courses. The hands-on, applied, more individualized mode of instruction suits some learning styles better than the traditional academic approach. Finally, another ever-important question concerns the best setting for secondary vocational education.

Rosemary Kolde is uniquely qualified to address the issues of secondary vocational education. Currently she is Associate Superintendent of the Great Oaks Joint Vocational School in Cincinnati. The largest vocational school district in the United States, it covers, 2,200 square miles and includes 35 school districts.

Dr. Kolde has been a high school vocational instructor, an assistant director, and director of vocational programs at the secondary level, and a district vocational director. Also Rosemary Kolde is President of the American Vocational Association. She has served as an officer for many local, state, and national professional organizations, authored many articles and conference presentations, and received various awards, among them being named the 1982 Vocational Educator of the Year by the Ohio Vocational Association.

On behalf of the National Center for Research in Vocational Education and The Ohio State University, I am pleased to present this seminar paper by Rosemary Kolde.

Robert E. Taylor
Executive Director

SECONDARY VOCATIONAL EDUCATION

Rosemary Kolde

Recent studies of the secondary schools have spearheaded an "education excellence" movement that has challenged the legitimacy of vocational education as a viable component of the total educational system in America. Increased graduation requirements, one-track systems, separate tracks leading to distinct diplomas, and a growing emphasis on the basics have jeopardized the future of vocational education at the secondary level. The excellence movement has been responsible for vocational educators joining together to examine and evaluate today's secondary vocational education programs closely.

The need for redefinition of vocational education in the 1980s is paramount. The vocational education of 1917 is no longer entirely relevant. Today's secondary vocational education must provide a broader, more all-encompassing focus on purpose. Vocational education for tomorrow must be an educational delivery system—not a subject-matter content area. It must blend and interrelate the various areas to provide core competencies, employment skills, and employability skills in a truly integrated and comprehensive educational program.

Every aspect of the educational program must be a part of the interrelated curriculum enabling students to develop the necessary knowledge, skills, attitudes, and values. If every part of the curriculum is not integrated as a portion of the interrelated education program, it is then considered general and not vocational education. It becomes a separate subject-matter content area that stands alone.

The application of all learning in a replica of the real-world setting and environment is critical to the process. Learners understand the meaning of the interrelationship of knowledge, skills, attitudes, and values through this application. These interrelated elements become an integral part of the individuals that will enable them to continue to learn throughout their lifetimes and to adapt to changes in the workplace. Mathematics, science, communication, and other educational areas take on new meaning to the students. They can see the necessity for and understand the use of each as a part of life and work.

Goodlad (1984) in *A Place Called School* presented a strong statement in support of vocational education: "I further believe that vocational education, including guided work experience, is an essential, not merely an elective, part of general education . . . and here I go beyond many of vocational education's advocates" (p. 147).

The Research and Policy Committee of the Committee for Economic Development's (1985) statement, *Investing in Our Children*, reports:

Mastery of the old basics of reading, writing and arithmetic may be sufficient for entry-level jobs, but because of the constantly changing nature of work, minimum skills are not sufficient preparation for career advancement. Schools must make a greater effort to develop higher-level skills such as problem-solving, reasoning, and learning ability (p. 16).

The report continues by stating that the mastery of basic skills and subject content should not be judged solely on a student's ability to pass an examination, but should be evaluated on how well the student can apply the skills.

Vocational education must redefine the competencies required for the learner to progress successfully within specific occupational areas. The program format must be strengthened, and competencies in math, science, communication, and organizational skills must be increased. These competencies cannot be isolated in theory-based academic programs but must be integrated with job-performance skills. To accomplish this, they must be extrapolated from the vocational curriculum by duty block and then sequenced in accordance with the demands of the vocational curriculum. This strengthened curriculum, integrated with the application of academics, will mold a learner who possesses the occupational-specific skills as well as the fundamental communication, computational, and problem-solving skills that are required by today's employers.

A dozen or so years ago, the Carnegie Commission, after a searching examination of our educational system, criticized the system for offering too many young people too few alternative options. The commission said that the system was biased toward academic subjects alone. Now, only a few years later, the Excellence Commission calls loudly for fewer options and a reemphasis on academic subjects at the expense of vocational ones.

Add to this the fact that only three out of every four children who enter kindergarten will graduate from high school. Only one out of three who graduate from high school will graduate from college, and of those graduating from college, 50 percent will have no job skills. And yet, the majority of the national studies and surveys would encourage designing the educational system around that one student out of four who will enter and graduate from college.

The reports and studies often overlook the primary recipient of their concerns—the student. Although academic excellence as a continuous process is a laudable goal, it must not be accomplished at the expense of the learner. A classical curriculum, without diversity and choice, will not accomplish the objective of raising a student's minimum and maximum achievement levels. A classical, one track curriculum would result in an increased number of students leaving the educational setting without meeting high school graduation requirements or being prepared for the labor force.

The Ohio state superintendent for public instruction recently indicated that Ohio will pursue a two track system leading to two identical diplomas. Students will be given an option of pursuing either a college preparatory or a vocational education track. All Ohio high school graduates will be prepared for a future after high school. A separate track system with distinct diplomas goes against all that educators have fought for over the years. Tracking and segregating students is damaging to students' self-esteem and self-value.

Secondary vocational education is responsive to all types of students. It serves students with different learning styles and capabilities equally and provides a means of addressing the needs of special populations. It offers students the opportunity to choose a diversified curriculum, with program quality and student achievement as primary objectives.

Critics have called for the abolition of vocational education in secondary schools. This short-sighted view calls it the enemy of excellence that prepares young people for imaginary jobs, teaches them to use antique equipment, teaches skills such as grocery sacking that are best learned in a few hours on the job, and costs too much.

Sidney Marland, former U.S. commissioner of education, believed that education's most serious failing is its self-induced voluntary fragmentation—the strong tendency of education's several parts to separate from one another, to divide the enterprise against itself. And Lincoln is quoted as saying, "A house divided against itself cannot stand."

Across this nation vocational education is a viable component of the total educational system. It provides an opportunity for educational choice—an opportunity for individuals to develop their abilities to the fullest possible extent.

Academic and vocational education are not in conflict, but are complementary. Each has an importance of its own. It should not be a question of either/or; it should be a question of both/and. Each type of education serves distinct, different functions that sometimes overlap.

The recommendations of the various studies have already brought changes to vocational education. Increased graduation requirements adopted by more than 30 states have provided a real challenge to our field as we endeavor to provide vocational education programs for students. An increased emphasis on basics has already greatly altered the course content of many of our programs. But it will take additional efforts on the part of vocational educators, if we are to continue to provide the education necessary, to meet the requirements of the individual as well as those of business and industry.

An increased emphasis on basics, a strengthened and more rigorous curriculum both in substance and motivational power, the mastery of skills beyond the basics, and greater student achievement are all elements that should be identified with quality vocational programming.

The redesign and redefinition of the secondary vocational curriculum will enable students to continue to have a choice in their educational program. Increased graduation and academic requirements will deny secondary students an opportunity to pursue vocational education programs because of a diminishing number of elective credits available. The extrapolation from the vocational curriculum of academic competencies—to be taught as applied academic courses—would provide the means for students to meet the increased requirements. The integrated curriculum approach also strengthens the vocational curriculum; it focuses on applied learning.

Can this integrated curriculum approach be accomplished in a comprehensive high school as well as a joint vocational or area school? What is the role of the joint vocational school versus that of the comprehensive high school? The nature of the area school certainly allows for an opportunity to address directly such issues in an efficient manner. The area school was designed to concentrate decision making and management on this one vital part of the educational system—vocational education.

The regional nature of the area school provides for an adequate population base so the school can offer a breadth of educational programming to serve the career plans of individuals and the needs of business and industry. This population base also enables schools to offer various unique programs not possible with limited and/or homogeneous populations.

The Research and Policy Committee of the Committee for Economic Development (1985) states:

Area vocational centers, which centralize occupationally specific training for an area's high schools, show much promise and should be expanded where possible. . . . The area center has shown itself to be a superior form for delivering vocational instruction" (p.8).

Perhaps the time has come to examine the vocational education delivery system closely. There is definitely a place and a need for secondary vocational education in both the area schools and the comprehensive high school. The intent and desired outcomes of such programs might vary. Rapidly changing technology, the demand for applied academics, and the needs of employers may precipitate the separation of in-depth occupational-specific vocational programming from the "reactive" vocational programs.

The Research and Policy Committee of the Committee for Economic Development reported that in school districts with area vocational schools, the comprehensive high school was devoted almost exclusively to academic preparation and "the result is that the best of both the vocational and the academic curricula are brought to bear" (p.34). Their recommendation is pay more attention to developing area vocational centers.

Vocational education, whether in the area center or the comprehensive high school, must produce quality vocational programs if it is to provide the kinds of workers desired by industry and if it is to remain a viable component of education in America. Quality programs must exist if state, local, and national policymakers are to be convinced that vocational education belongs in the secondary schools of this nation.

Quality vocational programs cannot be developed in isolation. Business and industry input and impact keeps vocational education moving toward its purpose of educating individuals to enter the economic system, to participate effectively in that system, and to have upward mobility in that system. Business has an important stake in improving vocational education. Vocational educators have long seen the advantages of interacting with the private sector. Policymakers felt so strongly about this cooperative liaison that they established, through the Carl D. Perkins Vocational Education Act of 1984, several additional avenues for such interaction, including the following:

- The National Council on Vocational Education-industry represents the majority
- state councils on vocational education—majority representation by employers
- technical committees—advise state boards of education and are comprised almost entirely of employers

In addition, the board of directors of the American Vocational Association has voted to initiate and implement a private sector council for vocational education. This council will be comprised of chief executive officers (CEOs) of national industry that employ large numbers of vocational graduates. The council will serve as an advocacy group and in an advisory capacity on national issues affecting vocational education. The board anticipates that the council will enable it to open communications channels between vocational education and business and industry and to utilize industry expertise in setting future direction for the field.

Dr. Marvin Cetron (1985), in *Schools of the Future*, forecasts a positive, progressive future for America's schools—if America's business and education communities cooperate to educate tomorrow's workers. He also forecasts that—

- schools will soon be responsible for more and more job-training programs, codeveloped with local businesses;
- because of the relentless pace of the high-tech revolution, workers will soon be displaced every 5-10 years and will need retraining at least that often (p. 2).

Less-than-excellent vocational programs exist. Such programs are not based upon sound fundamentals. We must raise the standards of all vocational education to ensure that vocational education will not be pulled down to the standards of the less than excellent. Vocational education has traditionally provided an applied learning environment where students participate in actual job task activities and experiences. This applied learning concept must never change—it is our strength!

Vocational educators must provide exemplary secondary programs that are not developed in isolation. They must put all of the educational components—the manipulative skills, the technical knowledge, and the core competencies—together in an integrated learning system.

Secondary vocational education is not a training program, but an educational program that prepares students to set the direction of their own lives and careers. It is an excellent vehicle to be utilized in the integration and application of the concepts of the basic skills, including technological literacy and career development. A quality vocational curriculum is a blend of skills necessary for student achievement as well as skills sought by employers. It is assuredly the individualized education that Goodlad praises—education that requires increased involvement on the part of both teacher and learner.

Woodrow Wilson once said, “We cannot be separated in interest or divided in purpose.” Vocational educators must stand together for an educational program of quality and excellence for all, but not the same educational program for all.

We must continue to work toward excellence. We are not an obstacle to educational excellence; vocational education can lead the way to educational excellence. Vocational education is exemplary! We need only to work together for a common cause—excellence in all vocational education.

QUESTIONS AND ANSWERS

Question: Can you explain the concept of "duty blocks?"

Duty blocks are related tasks performed by students within the vocational program. We take from those tasks the math or science principles that are needed and introduce them through the academic program.

Question: What is Great Oaks doing to ensure quality, and how are they involving business and industry?

We have both craft and general advisory committees. The latter advise the administration and the board; the former advise the vocational programs. They review our curriculum; advise us as to what is necessary to update the curriculum; and keep us on the cutting edge of new technology; and, in general, assist us to better meet the needs of business and industry. We review our curriculum on a 5-year cycle. Every program goes through a review at least once every 5 years if not more often. Each year we add new programs or delete programs depending on the availability of employment in the area.

We also use placement as a measure of a successful program. If our students are being placed in the jobs for which they have been trained, then we feel that we are successfully providing industry with the types of employees they need.

The Pride evaluation from the state of Ohio and the North Central accreditation evaluation are examples of additional outside evaluations that we utilize. We also survey employers. Our general advisory committee put together an instrument to survey employers of our graduates and our current students. The goal is to find out if Great Oaks is meeting the current needs of the business community in any given occupation. We then review their responses to see how we can further improve our programs.

Question: Many schools do employer surveys. How is yours different?

A survey can be done and then put aside. At Great Oaks we study the results and then try to implement the recommendations indicated. Our general advisory committee is invaluable to us. They have done some outstanding things to help us recognize what industry needs. We make certain that our instructors are also aware of those needs.

We have an industry exchange program that enables our instructors to work in industry for 2 weeks during the school year so that they are constantly updated. We try to cement our relationships with business and industry in many and various ways. Basically, we listen to what we are being told. We closely evaluate the information to be sure that the entire industry is in agreement with the recommendations. We must be certain that the recommendations are educationally as well as industrially sound.

Question: What is the role of vocational education in the comprehensive high school?

That is a difficult question because the role varies in every state. I hear from states that comprehensive programs are often being judged as inferior, not because they are, but because they do not provide in-depth studies of occupational areas. However, I feel there is a place for vocational education both in area schools and in comprehensive high schools. Perhaps we need to look at the difference between a very in-depth occupational-specific program versus a general program that could be used as an elective. A student who graduates with some vocational electives is not considered by industry to be a vocational graduate. That is the crux of the problem—a vocational graduate is not equal to a graduate with several vocational electives.

Texas is one example where vocational education programs have been placed almost entirely in comprehensive high schools. They are having problems there because the vocational programs are being judged by business and industry and by the public as being less than acceptable.

Each state is different. In Ohio, the area schools have a board of education that has only one concern—vocational education—as opposed to a board of education of a comprehensive high school that has to divide its money among the band, the art club, vocational education, and all other components. In such cases vocational education does not always fare as well. Sometimes they do not receive equipment, materials, and supplies they need, because there are so many other factors that come into play. The result is a vocational program that may be judged inferior.

Both delivery systems are important. We need vocational education in the comprehensive high school as well as the area vocational school or vocational high schools.

Question: How broad, or narrow, should vocational education preparation be?

The broader the occupational area that a student studies, the better able the student is to transfer those skills into other areas of the occupation. A student who studies only pastries has a very limited scope of what is really happening in a restaurant operation. A student in restaurant operations should be familiar with management, setting and waiting on tables, planning menus, purchasing, and so forth. There should also be time for students to study those areas in which they are most interested.

Question: Recently, Great Oaks added a period to each school day to teach employability skills and entrepreneurship education. How did that come about, and what do you expect from it?

It came about with great difficulty. Great Oaks serves 35 high schools, and adding additional time to the school day disrupted 35 bus schedules. We met with a great deal of resistance. We chose this route because we feel strongly that employability and entrepreneurship are essential skills that students should have when they leave us. The more we can do to broaden the students' outlook as they enter the world of work the better they will be able to handle their futures. So far it works beautifully and the students enjoy it. It gives them an entirely different outlook on what they are learning. Great Oaks has always incorporated some teaching of employability skills and entrepreneurship into the vocational program within a limited amount of time. We have found that students are extremely interested in the possibilities of entrepreneurship. The employability skills are something they will not appreciate nearly as much until they get out on the job market or start looking for a job. We are certain that we went in the right direction.

Question: The media suggests that business and industry are dissatisfied with vocational education. Is that true?

I think it is more of a media distortion. It is partly our fault because we are not getting the good word out. Every state I have visited has excellent working relationships between vocational education and industry. We fail to get that message to the media, and we fail to let the world know what we are doing. You know the old cliché—vocational education is the best kept secret. We keep saying that but we do nothing to change. Through the AVA private sector council we plan to address this problem. One of the objectives of the council is to see that positive information flows to the national media.

It is also important that each state address this issue. We need to address it in Ohio. Until we begin to tell the positive side of our story only the negative side will be heard. The Committee for Economic Development has met with the American Vocational Association and has indicated a desire to work with vocational education in an attempt to clarify some of the misinterpretations and to assist AVA in spreading the good word about what is happening in vocational education across the nation. It is time for vocational educators to be on the offensive, not the defensive. We have a great deal to be proud of—we just need to let others know.

Question: What are some of the recurring problems that you see as a local administrator that we might address here?

Attracting adequate numbers of students to vocational programs is probably the biggest problem right now. We are in need of additional research dealing with this problem. What really makes a student decide to pursue vocational education versus a college prep program? Vocational counselors work diligently to get the message across about vocational education but the student ultimately has to make the decision.

Another area of concern is what employers are looking for in the students they hire. Are vocational education programs meeting the needs of those employers? For example, a chief executive officer of a company may say that a student only needs a good foundation in the basics. On the other hand, the student's supervisor or personnel manager will say that he or she wants some skills along with the basics.

Other concerns include how to keep equipment up-to-date so that we can meet the needs of business and industry within a given occupational area and how vocational teachers can remain updated on industry standards. All of these ongoing concerns need to be addressed annually.

Question: What factors are most likely to hurt vocational education in the immediate future?

Students' inability to choose vocational education as an option and the increased graduation requirements are two of the biggest stumbling blocks that we are seeing in the states right now. There are certain numbers of credits which must be accumulated by students prior to graduation; therefore, they do not have enough time to select vocational education programs. Many of the state legislators do not see, or understand, the importance of vocational education to the economy of their states and to the nation.

Question: Can you comment on how vocational education serves at-risk populations?

The problem with at-risk populations is that even though they would probably benefit more from vocational education than any other segment of the population, they are not always enrolled in vocational programs. Education funding policies are one of the reasons. The manner in which schools are currently funded, at least in Ohio, is a real problem when it comes to student enrollment in vocational education. Teachers fight to keep students at the home school because a decline in enrollment might mean the loss of their jobs. Also, home school counselors are not always interested in ensuring that students understand what their choices are, or to look for what is best for the students.

Another problem we need to address across the United States is the number of students who drop out of school and who, perhaps, will never return. This phenomenon has increased in several states. In California and Texas, the number of dropouts is overwhelming. This will continue if we follow the advice of some of the national reports that advocate a one track system where students have no choice in educational opportunities.

Question: To what extent are secondary schools interested in "pre-tech" programs?

During the past year there has been an increase in the number of secondary schools looking at and providing pre-tech programs such as the principles of technology approach. The two-plus-two programs, and even the two-plus-four programs, also address this.

Question: Do you see a problem with vocational teacher quality?

Yes, in some areas there are problems, particularly in new technology areas. It is difficult to attract people to teach for much lower salaries than they would be making in industry where new technology pay levels are at an all-time high.

Teacher inservice is another area where we need to spend more time. Even though many of our teachers have obtained a college degree they require staff development. It is a proven fact that the more time we spend with teachers, helping them and working with them, the better they become. This school year at Great Oaks, we established a policy where the administrators are not allowed to be at their desks during the school day. Their time is to be spent in the vocational programs working with teachers and students. There are no meetings scheduled during the school day. Everything is scheduled after the end of the school day. We anticipate that this policy will help our teachers and give us an edge on teacher improvement and development.

Question: How does the pressure of vocational education affect industrial arts?

My knowledge of industrial arts programs across the United States is limited. What I am hearing from the industrial arts people is that they are in jeopardy of being eliminated completely. Currently they are attempting to establish and emphasize their importance as an integral segment of the vocational community. Looking at the problem from a prevocational standpoint, industrial arts does provide students with an opportunity to explore a different vocational area. Industrial arts seems to be disappearing across the nation. Now may be the time to change the program focus to career exploration as a part of vocational education.

Question: How are we going to make a case with policymakers?

We must get better media coverage. We also have to demonstrate to policymakers the benefits derived from vocational education. Some states can accomplish this more easily than others depending on the quality of vocational education within that state. To convince policymakers at any level that vocational education is worth keeping, we have to ensure that they see the best it has to offer. It is our charge to bring our "less-than-quality" programs up to the level of our "high quality" programs. We must keep communications flowing with our policymakers. We must keep them aware of the benefits provided through vocational education.

Question: Is there any recognition that college-bound students also need occupational skills and should be exposed to vocational education as well?

There have been a few recommendations in the national reports that vocational programs should be available to college-prep students as well as to those in vocational education. This has not been well received. Fifty percent of the students who graduate from college have no job skills, and I don't see that changing in the foreseeable future.

Question: Are there fears that, in some districts, area vocational schools will try to take over some of the academic subjects from the comprehensive schools?

That is always a fear whether it is attributed to vocational education or through consolidation or smaller school districts. I am not advocating that an area vocational school teach all of the academic subjects that a comprehensive high school teaches, only those that relate to the vocational programs offered. Area vocational schools do not want to assume the responsibility of teaching the academic subjects for the affiliate schools.

In many of the schools in Ohio we extrapolate the math and science from the vocational curriculum. The vocational and academic teachers work together to design the curriculum for the academic program so that the two curriculums interrelate. For example, the carpentry students learn the theory in the math class with examples given pertaining to carpentry. Later in the day, in the carpentry laboratory, they learn how to apply that theory in their lab projects. We do not teach straight academic classes; we teach interrelated academics or "applied" academics. The straight academic courses are the very courses many of the vocational students have tried to escape in the first place. Students felt the straight academics were irrelevant. We give the academics meaning or relevancy.

Question: What is the Center for Employment Resources at Great Oaks?

The Center is our support system for business and industry. Example: The Great Oaks' Second Careers program started out as a displaced homemaker program. It has grown to incorporate not only displaced homemakers but also transitions and job internship programs. These programs are operated in cooperation with business and industry. The support system housed at our Center assists individuals as they reenter the job market or make career changes. We also provide outplacement, counseling, testing, and assessment. All of these programs provide us with an excellent vehicle to firmly establish our credibility within the community.

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