

Prosser's Sixteen Theorems on Vocational Education

A Basis for Vocational Philosophy

Dr. Charles A. Prosser, the first National Director of Vocational Education, developed and publicized the following sixteen theorems as a basis for sound and successful programs. Many attempts have been made throughout subsequent years to re-phrase or update these statements, without success. There are certain minimum standards without which one may not reasonably expect to operate a program of vocational education and be effective generally in programs of either preparatory or extension education. There is little reason to believe that these basic standards have changed materially since the early development of the program. For this reason these sixteen theorems are being quoted with a short interpretation supplementing each theorem.

1. “Vocational education will be efficient in proportion as the environment in which the learner is trained is a replica of the environment in which he must subsequently work.”

This theorem dictates that the type, kinds, amount, use and arrangement of space, materials, equipment and supplies for a preparatory program be a replica of those in employment. It has a bearing upon the length of time devoted to skill development necessary to approach industrial practice. It has implications for quality and quantity of production expected. It has direct implications for teacher-learner ratios. It relates directly to the efficiency with which a student transfers from school to employment.

2. “Effective vocational training can only be given where the training jobs are carried on in the same way with the same operations, the same tools and the same machines as in the occupation itself.”

The implications of this statement are that instructors must have recent employment experience in order to be skillful in the use of the latest equipment and must make use of the same types of tools and equipment as would be currently found in employment; and, must use live work or work identical to that provided in employment for instructional experience rather than pseudo or so-called “project” work. Emphasized here is that the skills taught should follow the same basic practices as industrial employers would expect, and learners should be able to move from the training situation to employment situation with little need for adjustment.

3. “Vocational education will be effective in proportion as it trains the individual directly and specifically in the thinking habits and the manipulative habits required in the occupation itself.”

Two important education factors are implied in this statement. First— thinking habits which implies that the scientific or problem solving method is being developed in students; and second—that manipulative skills be performed with sufficient repetition that habit formation takes place. This, in turn, has implication for the length of class periods and for the total length of courses. There is also an implication here for a major aspect of the occupation, namely the technically related content where knowledge and facts are as essential for thinking, as tools are for productive work.

4. “Vocational education will be effective in proportion as it enables each individual to capitalize his interest, aptitudes and intrinsic intelligence to the highest possible degree.”

This theorem has direct implications to class size, to individualized instruction, to instructional methods, to effective guidance and selection of learners, and to the promotional plan for the program. Here also, is that each specific vocation may well have its own unique requirements for admittance. For example, the depth and ability in mathematics could vary considerable between various occupations, as would the physical and other characteristics of individuals.

5. “Effective vocational education for any profession, calling, trade, occupation or job can only be given to the selected group of individuals who need it, want it, and are able to profit by it.”

Vocational education is not for everyone and this statement implies that those admitted should be carefully selected through effective guidance procedures and should be potentially successful as future productive workers. Persons should be selected on the basis of their own interests and aptitudes, and on the basis of their being potentially a successful employee following preparation.

6. “Vocational training will be effective in proportion as the specific training experiences for forming right habits of doing and thinking are repeated to the point the habits developed are those of the finished skills necessary for gainful employment.”

This statement effects one of the most crucial requirement for successful vocational preparation. Few people could be prepared to perform skillfully some work without having spent sufficient time in performing the variety of skills required so that habit formation may take place to the end that they can practice these skills at a future date. The direct implication here is for adequate lengths of time during the day, and for an adequate period of time in months to cover the skill and technical development essential for effective employment as a productive worker.

7. “Vocational education will be effective in proportional as the instructor has had successful experience in the application of skills and knowledge to the operations and processes he undertakes to teach.”

The implication in this case is that the teacher cannot teach that which they do not know; and, since the subject matter of the vocational teacher is composed of the skills and knowledge of the occupation, it would follow that teachers who are recognized as highly competent workers themselves through actual successful employment experience would be most desirable for a vocational program. The recency of any such experience is also of utmost importance if learners are to be prepared for current expectation for employers; and this, the recency of work experience of the potential vocational teacher is implied in this theorem.

8. “For every occupation there is a minimum of productive ability which an individual must possess in order to secure or retain employment in that occupation. If vocational education is not carried to that point with that individual, it is neither personally or socially effective.”

We see in the above statement a direct bearing upon the proficiency expected of learners who wish to find their place in the world of work. Vocational education must prepare the individual to meet the

employment requirements of employers. Again, to meet these employment requirements requires considerable preparation, which relates to the length of the period, day or year required for the particular offering.

9. “Vocational education must recognize conditions as they are and must train individuals to meet the demands of the “market” even though it may be true that more efficient ways of conducting the occupation may be known and that better working conditions are highly desirable.”

Vocational education programs can never exist as merely course in a school system but must be considered a community-wide project. Therefore, this statement implies the dire need for the use of craft committees; for instructors with recent employment experience; and for a program that is geared to existing opportunities in the community, the area or the state. Instruction beyond immediate needs is encouraged, but not at the cost of basic current needs of employers.

10. “The effective establishment of process habits in any learner will be secured in proportion as the training is given on actual jobs and not on exercises or pseudo jobs.”

This theorem emphasizes again the need for practical, live work on which learners may practice developing the skills essential to an occupation. Learners cannot obtain the feel for the kind of work that will be done in employment when working on pseudo jobs or so-called projects. The work performed must be as identical and as up to date as possible with current practice in employment situations.

11. “The only reliable source of content for specific training is an occupation is in the experience of masters of that occupation.”

This statement reaffirms the need for occupational analysis as the basic method of curriculum development. It also emphasizes the importance of effective involvement of representative occupational advisory committees in assisting in curriculum planning. The occupationally competent instructor must utilize both these resources in the construction of his detailed course content.

12. “For every occupation there is a body of content which is peculiar to that occupation and to which has practically no functional value in any other occupation.”

This statement has direct implication to the close coordinated instructional program between the related technical construction and the skill development phase of the program. The application of mathematics and scientific principles to problems of the vocation should be the emphasis rather than teaching segregated subject matter courses that may or may not have direct relationship to the needs of the student. So-called broad or general areas of instruction in the subject matter unrelated to the problems at hand will have little benefit to the development of a competent worker.

13. “Vocational education will render efficient social service in proportion as it meets the specific training needs of any group at the time that they need it and in such a way they can most effectively profit by the instruction.”

This statement emphasizes the desire on the part of an individual to learn, in that vocational education should provide what the learner wants at the time he wants it, and in relation to his own recognized needs. This theorem has particular emphasis to the extension programs for employed workers since

they will not use their own time to attend courses unless they are reaping direct benefits of immediate use from such attendance.

14. “Vocational education will be socially efficient in proportion as in its methods of instruction and its personal relations with learners it takes into consideration the particular characteristics of any particular group which it serves.”

This theorem implies that there is no single set of general characteristics such as school grades, IQs or other such characteristics that should be used as a basis for projecting vocational success; but, rather by knowing the individual student’s interests, aptitudes and abilities, he can usually be guided into successful vocational experiences or guided away from enrolling into occupations for which they are unsuited.

15. “The administration of vocational education will be efficient in proportion as it is elastic and fluid rather than rigid and standardized.”

Here the implication is for flexibility within the framework of sound standards that support good vocational education rather than maintaining a rigid and inflexible plan. Vocational educators should be always alert to possible improvement and be willing to work toward continually adjusting the programs in light of changing employment requirements.

16. “While every reasonable effort should be made to reduce per capita cost, there is a minimum below which effective vocational education cannot be given, and if the course does not permit this minimum per capita cost, vocational education should not be attempted.”

Preparation for employment is generally more costly than general education, whether it be at the skilled, paraprofessional (technical), or professional level. This additional cost is usually dependent upon the space, equipment, materials, and the necessity for smaller class size than would be true of normal academic programs of instruction. However, this statement directly implies that it is better not to attempt a vocational program than to operate it below the economic level that would lead to success. Vocational education is not cheap education, but it is economically sound to provide it.

If every vocational educator responsible for programs of instruction would only maintain this list of sixteen theorems in front of them and make a serious effort to meet these goals, the result would, in almost every instance, be sound, quality vocational education. The more nearly a vocational program can approach the full realization of these theorems in its operation, the higher the quality of the program will be. Any attempt to disregard any one of these basic and fundamental concepts, can only result in undermining and destroying the program of vocational education for the citizens of the community.

Source of original statements:

Prosser, C. A. & Quigley, T. H. “Vocational Education in a Democracy” American Technical Society, Chicago, Illinois, 1949.

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