

FOLLOW-UP STUDIES: FACTORS TO CONSIDER  
IN PLANNING AND IMPLEMENTATION

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Education serves not only the needs of the individual but also the community in which the individual lives. Vocational Education contributes importantly to both of these goals. The actual determination of Vocational Education in making an effective contribution to these goals is of concern to educators and vocational educators in particular.

With the emphasis on accountability, and the mandates of Vocational Education legislation, valid evidence of the effectiveness of vocational programs must be demonstrated.

One way to determine the effectiveness of vocational training is to study the employment patterns of the individuals who have completed vocational programs. Job performance of individuals who have completed vocational programs must be determined. Vocational educators charged with program review need feedback to determine vocational program effectiveness. This type of data may be determined via a follow-up study of former vocational students.

It is a basic premise that to determine the effectiveness of a vocational program one should begin by an examination of the objectives of the program. These program objectives should include the needs of society suggested above. Given these two conditions, the data needed to determine program effectiveness must be considered.

What data are needed to measure the effectiveness of a vocational program? One set of data needed is employment data of individuals who have completed vocational programs. To obtain these data, the nature of the follow-up study must be determined. Traditionally, the common core of content items in follow-up studies centers around three types of data: (1) Data of a personal nature about the individuals, (2) Data that describes the students vocational training, and (3) Data pertaining to the jobs taken by the individuals.

Within this tripartite core the following types of questions appear on many instruments: (1) Did you seek a job? (2) How much did you earn? (3) Was your first job related to your vocational training? (4) Were you satisfied with your vocational training and/or job? These questions are not a comprehensive list but examples used for illustrative purposes.

Combining these data with individual descriptive data, a summary is developed that helps determine if a vocational program is meeting its stated objectives.

However, do these data really answer the first question asked? "What data are needed to indicate the effectiveness of a vocational program?" One of the shortcomings of many follow-up studies is the lack of specificity of data collected. Much of this results from failure to isolate the specific effect of vocational training on individuals over and above their general education.

To improve the usefulness of follow-up studies it is felt that three factors must be incorporated: (1) Obtain data on comparison groups, such as non-vocational students, (2) Specify the relationship between vocational training and employment, and (3) Collect data that demonstrates the impact of the vocationally trained individual in the labor market.

The following illustration will be used to demonstrate the importance of these three factors. Each of the four previously mentioned questions will be discussed, and a hypothetical response will be used for discussion purposes.

The questions, Did you seek a job? and How much did you earn?; will be used to illustrate the first factor. Assume an affirmative response of 75 percent for question one and \$3.00/hour for question two. The response of 75 percent of the individuals reporting that they did seek employment leaves some unanswered questions. Did the vocational training have anything to do with the percentage of individuals who sought a job? Additional information is needed to properly answer this question. One additional item that could be included would be to identify the response of a comparison group of the same question. An examination of these two rates would help determine the true impact of vocational training. Moss (1968) stated:

"Too many studies have been reported in which a high placement rate (as one program outcome) is assumed to be valid evidence of a good vocational program, without bothering to compare that rate with some alternatives programs' placement rate..."

This factor can be further illustrated by examining the earnings of vocationally trained individuals. Assuming an earnings rate of \$3.00 per hour as an average reported in a follow-up study. One can ask the question: How much of this figure is attributable to vocational training? As before, one needs to compare this result with the earnings of a comparison group to isolate the net effect that vocational training has on earnings.

A word of caution should be noted as one identifies a comparison group. Attention should be given to a valid comparison. It would be futile to compare a group of non-vocational students with a group of vocational students unless the groups were matched on common traits thus isolating vocational training.

The second factor to consider in follow-up studies is to specify the degree of relatedness that actually exists between vocational train-

ing and employment. A typical question that appears on many follow-up studies may be verbalized as: Was your first job related to your vocational training? A high affirmative response rate as opposed to a low one would provide some insights. Often the response to this question is a scale with responses such as: highly related, moderately related, etc. A percentage is calculated that indicates the degree of relatedness. However, to interpret properly the question, one needs to know more. Wheeler (1971) stated: "...evaluator needs to be able to specify, for a given training program and given job, the extent or similarity of degree of relatedness." Therefore, as one prepares a follow-up study the data collected should specify the degree of relatedness between vocational training and employment. This factor is not by intent limited to questions on job relatedness. All variables that attempt to relate vocational training and employment should be scrutinized by the same criterion.

This may be accomplished by several techniques: (1) Obtain a task inventory and compare this with skills learned in vocational training, (2) Interview employer and teacher to determine if students' skills are related, (3) Observe students on-the-job. As can be surmised, these alternatives are expensive and time-consuming. A feasible alternative would be to select one or more of the three techniques and randomly sample the population to get an index of the relatedness. Wheeler (1971) developed a model to accomplish this that is worthy of consideration.

The important aspect of this factor, as well as the first one, is the determination of the effects of vocational training on the employment of the individual. A follow-up study should strive to provide data that can accomplish this function.

A third factor to be given consideration in a follow-up study is employer satisfaction with the vocationally trained individual. A question that appears on many follow-up instruments is: Are you satisfied with your vocational training and/or job? This question on many follow-up studies concerns only student oriented impact. It is not enough to determine if the student was satisfied. It could be that intervening elements distort the results. For instance, a popular teacher may influence the perceptions of many individuals. Their true satisfaction with their vocational training may be hidden. The more important aspect of this factor deals with employer satisfaction of vocationally trained individuals.

A follow-up study could reveal that the individuals studied were satisfied with their jobs and their training, but if data relative to whether or not employers were satisfied with the vocationally trained individuals has not been collected, then has the program effectiveness actually been determined? The point is, as one prepares a follow-up study to determine program effectiveness, data should be collected that reveals input from employers. This input is needed to determine if the vocationally trained student can function in the labor market, and how they function compared with non-vocationally trained individuals.

One should not conclude that the illustrations used in this paper are not to be used as valid parts of a follow-up study. The premise is that much more is needed if the follow-up data is to provide a true index of vocational effectiveness.

In summary, as one plans a follow-up study to determine vocational program effectiveness, considerable attention should be given to: (1) Gathering data on comparison groups, (2) Specify the degree of relatedness between vocational training and employment, and (3) Obtain feedback from the employer. Inclusion of these three factors should improve the results of vocational follow-up studies. Data obtained from a follow-up study must differentiate the effects of vocational training and determine its true impact.

#### REFERENCES CITED

- Moss, Jerome, "The Evaluation of Occupational Education Programs" Technical Report, Research Coordinating Unit in Occupational Education, University of Minnesota, 1968.
- Wheeler, Davis N. "The Measurement of Job Relatedness for Vocational Program Evaluation" Technical Report, Research Coordinating Unit in Occupational Education, University of Minnesota, 1971.

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