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A TOOL FOR PLANNING INSTRUCTIONAL PROGRAMS

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Vocational Education is concerned with instruction designed to meet the educational needs of persons preparing to enter a specific occupation. In Agricultural Education the major effort has been focused on meeting the needs of those preparing for proficiency in farming. Presently there is a growing concern in our profession to include training for proficiency in agriculture as a major objective.

The intent of this article is to suggest a procedure for determining the educational and training needs of individuals in programs of vocational education in agriculture. This procedure is job analysis.

Job analysis as used herein is the process of objectively determining the duties which comprise a given job and the skills, and knowledges that are essential for successful performance by the worker in the job.

A basic assumption of importance at the outset of this undertaking is that our profession is very much in need of a systematic way to determine the training needs of individuals in programs of vocational agriculture. Much of the success accorded the program throughout its growth and development could be attributed to the validity of basing the instruction upon the educational needs of the students. We have achieved status and recognition for doing a superior job in this area in terms of increased size and expanded interests and activities.

Were someone to raise the question how have we determined the training needs of individuals enrolled in the program, a clear, concise meaningful answer might be difficult to verbalize. A review of the agricultural education literature reveals very little in answering this question. Much is to be gained by a more extensive use of the job analysis approach in vocational agriculture.

In the North Atlantic Region, "A Program For Directed Participating Experience As A Part of The Preparation of Teachers of Vocational Agriculture" was developed. This was based upon the work of a vocational agriculture teacher and did involve the job analysis approach. The guide was widely used by many states in the region. Recently revised, the new edition was based on an analysis of the job of the teacher of agriculture.

There is in the Industrial and Labor Relations literature ample philosophical and theoretical justification for using job analysis. Included also in this category are the role analysis studies of Neal Gross at Harvard who used the approach in studying the job of school superintendents. Though too long to report here, it is from this literature that the justification and use of the job analysis approach is recommended to our profession.

In job analysis studies role is defined as "the manner in which a person actually carries out the requirements of his position* - what he actually does. By interviewing the incumbent of a selected position the duties, skills and knowledges essential for successful performance in that particular position can be determined. This is the underlying principle of job analysis. The analysis is concerned with the elements comprising what the employee does in his job and in no way is concerned with a worker analysis or what degree of proficiency the employee attains in his work.

The elements of the job of immediate concern in planning educational programs are the duties, skills and knowledges essential for successful performance by the worker in the job. Listing the major duties performed by the employee in a given job would be the first step. Identifying the skills involved in performing these duties would follow based upon the experience of the employee in the particular job. From the duties and skills considered essential in performing the work a list of essential knowledges is developed. Each step in the procedure is of the utmost importance; an irreversible process, as it were, in which the outcome of each step affects the outcome of the next step.

Having identified the essential duties, skills and knowledges for a specific job or position it becomes reasonably easy to determine the kind of a training program to develop the necessary competencies. Manipulative abilities and skills to be developed are included in one list of requirements for proficiency in the job. The content and amount of theoretical textbook material that is needed in the training program is determined from a study and analysis of the knowledges required. The duties, skills and knowledges required for successful performance by the worker on the job thus becomes the basis for instructional programs of vocational education in agriculture.

* Neal Gross, Who Runs Our Schools, p. 14.

A job analysis approach for determining the training needs of individuals is equally valid in a relatively simple job or position as well as a professional position such as teaching agriculture. Quite obviously, in making a job analysis in these two situations differing degrees of complexity would be encountered. Asking from five to ten employees to identify the essential duties, skills and knowledges would be sufficient for a simple job or position whereas in teaching agriculture it might be desirable to interview twenty-five or more teachers in order to obtain an exhaustive list of duties, skills and knowledges needed for effective performance as agriculture teachers. In either case, however, the end result should be the essential duties, skills and knowledges required of an individual for successful performance in the job or position.

In addition to the values from a job analysis in planning educational and training programs for vocational education in agriculture, many other advantages could be enumerated. It would be of value in the selection and placement of individuals - secondary and post secondary school students and prospective teachers; provide facts for determining the relative worth of agricultural occupations for job evaluation; to determine occupational requirements against which employee performance may be measured; and to provide occupational facts necessary to the advising of students and prospective teachers.

Should many of the recommendations appearing in current literature from supervisors, teacher trainers, agriculture teachers and others relative to broadening the program of vocational agriculture become accepted procedure a job analysis would be a necessity in our program. Training boys for proficiency in farming and agriculture would involve varying degrees of specialization in agriculture - landscaping - for example. The duties, skills and knowledges essential for successful performance in this occupation would be needed in order to plan an effective vocational education program to meet these needs.

In a similar manner the training programs for prospective teachers would require a new emphasis. Teachers in increasing numbers would be needed to teach in the specialized areas, a trend already underway in Massachusetts. The specialized duties, skills and knowledges required of the prospective teacher form a logical basis in planning the content for the training program.

Recently in one of our professional journals much was said about "vocational agriculture at the crossroads". We need to follow the road of systematic study and analysis in planning our instructional programs. Planning instructional programs for all-day students and prospective teachers based upon tradition, heresay and what we think are the training needs of these groups is not the road to progress. Rather, let us plan our program upon the basis of the duties, skills and knowledges essential for proficient performance in a job or position as revealed by a job analysis. Such a procedure is one road to take in moving the program of vocational education in agriculture forward in the 60's.