

A CURRICULUM ACCOUNTABILITY STUDY

Martin B. McMillion
Associate Professor

Agricultural Education
Virginia Polytechnic Institute
and State University

The term "accountability" as generally used refers to the efficient use of funds. Accountability in curriculum concerns whether or not use is made of what is taught and learned. How many graduates made on-the-job use of the items of content normally taught in the vocational agriculture curriculum in the State of Virginia? The use off-the-job was collected as well.

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Objectives

Specifically the objectives were to ascertain:

1. The percent of those followed-up who were using the subject-matter content in the job they held,
2. The subject matter content used on the job by the most individuals and by the least individuals,
3. The percent of graduates who earned over half of their income from an agricultural occupation,
4. The extent of use of content by graduates who earned over half of their income from an agricultural occupation,
5. The subject matter items which are used by more graduates on the job who have been out of school longer,
6. The relations of years of agriculture studied and use of items of subject matter content,
7. The amount of agriculture studied by those who did not earn over one-half of their income from an agricultural occupation,
8. The percent of those followed-up who attended post-secondary institutions full time, and
9. The percent of those followed-up who studied agriculture while a full-time student in a post-secondary institution.

Population

Teachers of agriculture in all high schools of the State of Virginia were asked to interview their 1971 graduates who had been out of school one year and one other group, either 1968, 1969, or 1970 graduates. A randomization procedure was used to assure that some 1968, 1969, and 1970 graduates were interviewed in each area of the State.

Usable data were obtained from 1,396 former students from 104 of the 153 high schools that graduated students in 1971. About one-third of the potential students were followed-up. The schools that did participate reached a high percentage of their former students.

Procedure

1. Based upon the results of earlier pilot studies,² a decision was made to substitute the kind of follow-up reported here for a required report called the "15-year follow-up."
2. Meetings in each of the six supervisory areas of the State were conducted to orient the teachers to the study and to their role as interviewers.
3. Interviews were conducted during late summer and fall of 1972.
4. The completed questionnaires were returned to the author via the area supervisors.
5. Summaries were prepared for local schools, supervisory areas and for the entire State.
6. Meetings were held by supervisory areas to assist the teachers in analyzing and interpreting the local school results.

Findings and Conclusions

1. Eighty-eight (88) percent of those followed-up were making considerable use of the subject matter items in the job they were holding. Of the 1,396 former students followed-up, 974 were classified as having at least a part-time job in agriculture and an additional 247 former students were employed in mechanics jobs that were not agricultural or mechanics jobs.

2. The items of subject matter content used on the job by at least one-third of the respondents in the order of the highest to lowest number of individuals using them were:

- using safety equipment and practices in mechanics work,
- maintaining, operating and caring for power equipment,
- reconditioning and caring for handtools,
- locating, applying for and obtaining a job,
- repairing, operating and maintaining machinery,
- adjusting and/or assembling machinery,
- planning for safety (management),
- performing carpentry and other work with wood,
- performing cold metal work,
- taking an inventory,
- keeping and using records,
- overhauling, maintaining, and using small engines,
- overhauling, maintaining, and using tractors and stationary engines,
- welding with electricity,
- performing sheet metal work,
- welding with oxy-acetylene gas, and
- providing, maintaining and operating equipment (livestock).

Locating and applying for a job was not first in the ranking because of the amount of self-employment by those surveyed. Those who became established in farming gradually did so and did not need to apply for a job. Employment by the military services, especially by draftees, did not entail the use of job application skills.

Taking an inventory and keeping and using records were the only items, in addition to locating and applying for a job, that appeared in the list used by the most people which were not in the category of mechanics. These two items, like all the others among these eighteen items of subject matter content, are ones used in many different occupations which might account for the higher number of individuals using them.

Thirteen items of subject matter content were used on the job by less than ten percent of the individuals studied. The thirteen items of subject matter content used by less than ten percent of individuals on the job in the order of least to most individuals using them were:

- conducting plant breeding work,
- developing and operating an agricultural recreation business,
- testing milk,
- producing hybrid and certified seed,
- propagating plants through grafting and layering,
- designing a landscape plan,
- planning, installing and maintaining an irrigation system,
- testing soil,

- registering with breed association,
- grading (livestock),
- inspecting (livestock),
- selling supplies and materials used for growing plants, and
- processing for market (livestock).

3. One-third (471) of those followed-up were classified as being employed more than half-time in an agricultural occupation.

4. The average number who used each of the items and the average use across the entire 144 items of subject-matter content for those employed more than half-time in an agriculture occupation appeared to constitute a desirable standard or goal. When all questionnaire items were considered as one, the average percent of individuals who used the items on-the-job in the group of 471 was 48 percent. The average use by the remaining 925 who did not gain over half of their income from an agricultural occupation was 10 percent. Only one item of subject-matter content out of the 144 items was used by a greater percent of individuals on-the-job in the group of 925 who did not earn over half of their income from an agricultural occupation than in the group of 471 who did. The item was "locating, applying for and obtaining a job."

5. Certain items of subject matter content, especially those having to do with club activities, were believed to be less used by very recent graduates and more used by individuals who had been out of school longer. Because individuals from the 1968 through 1971 graduating classes were included in the study, an effort was made to determine whether or not the group that had been out of school the longest made more use of certain kinds of subject matter content than the others. A combined analysis of the 471 who earned over half of their income from an agricultural occupation and the remaining 925 was not made. In the guidance and leadership category the items appeared to be related to years out of school for both the 471 who gained most of their income from an agricultural occupation and the 925 who did not. The same held true for the area of agricultural mechanics. In fact, when comparing the 1968 graduates with the 1971 graduates within the group of 471, only eleven items out of 144 were used by a higher percent of 1974 graduates than 1968 graduates. If an item is not used the first year out of school, it is not an indication that it will never be used.

6. Use of content on the job increased with increased years of agriculture studied except between two years of study and three years of study. This statement is true for nearly every one of the 144 items of subject matter content for three through five years of study.

7. The average number of years of Vocational Agriculture studied by the 471 individuals classified as earning over half of their income from agricultural employment exceed that of the remainder of

those followed up by .285 of a school year which was significant in a practical and statistical way. This finding could indicate the presence of decision making concerning careers during high school.

8. Of the 1396 students in the study, 459 (32.87 percent) had attended post-secondary institutions as full time students.

9. About half of the group that went to post-secondary institutions on a full-time basis studied agriculture. The number was 210 or 15.04 percent of all the graduates followed-up.

The procedure used in this study whereby teachers interviewed former students to see if they were using what they had been taught was felt to be very useful in encouraging relevancy in teaching. The value of the process of the study may have exceeded the value of the findings of the study.

In comparing the use made of content by those earning over half of their income from an agricultural occupation with those who do not, it should become obvious that improvement of curriculum accountability will come about by carrying out those practices in guidance supervision, placement and follow-up which insure that graduates obtain jobs in occupations where their knowledge and skills can be put to use.

FOOTNOTES

¹McMillion, Martin B. Assembling and Using Occupational Data Concerning Former Students of Vocational Agriculture in Virginia. College of Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, August, 1974.

²Crunkilton, John R. Summary Report of the Evaluation of the James Wood High School's Agricultural Education Department. College of Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, June, 1971.