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ABSTRACT

A well-developed approach to dissemination and utilization (D&U) at the four levels of spread, exchange, choice, and implementation is essential if vocational education research and development (R&D) is to achieve the measurable impact found lacking in a Committee on Vocational Education Research and Development (COVERD) assessment (1956). Federal legislation provided no specific provisions or funding for R&D or D&U prior to the Vocational Education Act of 1963, which was followed by the increasingly more supportive Vocational Education Amendments of 1968 and the Educational Amendments of 1976. In particular, the "impct statement" of the 1976 Amendments emphasizes D&U by pressuring R&D personnel to show that their work is useful. Assessments of current D&U show that dissemination networks inadequately disseminate reporting which is often poorly done, that the target audiences need help at all levels of D&U, and that practitioners are often unaware of innovations. Improvements in D&U will require coordinated efforts by vocational educators at the national and regional levels to continue development of the nationwide network with trained personnel and adequate R&D funding and at the state and local levels to establish D&U, which is largely a state responsibility, as a high priority. At this level adequate financial support should be provided, responsibility for coordinating the vocational education activities assigned, D&U activities emphasized in the program improvement section of the state plan, and statewide networks for D&U activities established. (YLB)

DISSEMINATION AND UTILIZATION: AN IMPERATIVE

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Introduction

When I became Vice-President of AVERA, I began to think about the preparation of a presidential address. I recalled vividly the outstanding addresses of my predecessors and how I had been impressed by them. The challenge I faced was that of selecting a topic which would be important and meaningful to AVERA members and which I would be capable of explicating.

My first decision was to deal with a problem or issue of major concern to the membership of AVERA. Numerous possibilities came to mind such as the need for improved legislation, the need for increased funding of research and development (R&D), evaluating the impact of R&D, increasing the pool of trained researchers, setting priorities for R&D, distributing R&D funds and dissemination and utilization (D&U) of R&D products and results. As I reflected on these and other problems, my thoughts kept returning to the matter of D&U. It is a component of crucial importance in any systematic approach to R&D and should be of interest to AVERA members.

As my thoughts crystallized, I chose to deal with the problem of D&U and have entitled the address "Dissemination and Utilization: An Imperative". The presentation will be organized around four areas: (1) a definition of D&U, (2) federal legislative provisions for D&U, (3) a brief assessment of the situation, and (4) some recommendations for improving D&U.

Definition of Dissemination and Utilization

An approach sometimes used in D&U efforts is to mail a product to potential users and follow up after a specified period of time with a questionnaire to assess the utilization of the material. While this may work for some products, it is inadequate as a general approach for D&U of R&D results.

A more inclusive definition is the one developed by the Dissemination Analysis Group of the Dissemination Policy Council (Fletcher, 1977). This definition

is suitable for use here, and it classifies activities into the following categories:

> Level 1: Spread: The one-way casting out of knowledge in all its forms: information, products, ideas and materials, "as though sowing seeds."
>
> Examples: Radio and television broadcasts, general mailings (without follow-up or feedback), news releases, speeches, official publications (e.g., The Federal Register; Commerce Business Daily), journal and magazine articles, books, newsletters; inclusions in ERIC, libraries.
>
> Level 2: Exchange: The two-way or multi-way flow of information, products, ideas, and materials as to needs, problems, and potential solutions.
>
> Examples: Need-arousing, need-sensing, and activities which provide for user influence ("feedforward"); feedback activities, [such] as user surveys, user panels, and site visits; and sharing activities, such as conferences among peers.
>
> Level 3: Choice: The facilitation of rational consideration and selection among those ideas, materials, outcomes of research and development, effective educational practices, and other knowledge that can be used for the improvement of education.
>
> Examples: Incentives of LEA's to engage in search behavior before making decisions; training in decision-making; visits by decision-making practitioners to a variety of demonstration sites; searches of resource bases and comparisons of the array of relevant programs, products, or knowledge so generated, catalogs comparing alternatives; traveling exhibits.
>
> Level 4: Implementation: The facilitation of adoption, installation and the ongoing utilization of improvements.
>
> Examples: Consultation, on-user-site technical assistance, locally tailored training programs in required new behaviors; laboratory settings for the practice of new behaviors. (pp. 3-4)

Since the above definition carries dissemination to the stage of implementation, we shall regard it as a definition of D&U.

Legislative Provisions

Prior to 1963, vocational education legislation did not provide specifically for R&D funding and thus did not include D&U. The legislation did permit the support of surveys, analyses of trades and the like.

The Vocational Education Act of 1963 (U.S. Congress, 1963) signalled the beginning of specific support for R&D. The first D&U activities were funded by the U.S. Office of Education and included a national center and national projects for vocational education, an ERIC clearinghouse for vocational education and research coordinating units (RCU's) in a number of states.

The Vocational Education Amendments of 1968 (U.S. Congress, 1968) contained broadened provisions for R&D and D&U. The R&D funds were divided between the U.S. Commissioner and the states. Part of the Commissioner's share was used to fund D&U activities such as a national clearinghouse for vocational education, a national center for vocational education and projects which included the dissemination of research products and outcomes. Provision was made to disseminate curriculum materials through the funding of curriculum coordination centers which formed a network with state curriculum liaison representatives. Funds made available to the states were specifically provided for the support of RCU's. The funds could also be used to make grants to various agencies and institutions for several purposes which included dissemination.

The current legislation, the Education Amendments of 1976 (U.S. Congress, 1976), contains extensive provisions for R&D and an increased emphasis on D&U. A major subpart of the legislation entitled "Programs of National Significance", provides for support of a national center for research in vocational education with a mission that includes operating a clearinghouse for vocational education R&D and developing and operating a national D&U system for vocational education. Funds may be used for projects that involve D&U of R&D products and outcomes.

The 1976 legislation also includes a subpart entitled "Program Improvement and Supportive Services". This subpart provides funds for RCU's and for contracts by those units. There is emphasis on dissemination of the results of contracts, and a provision is included for employing local disseminators.

One especially notable feature of the R&D provisions in the 1976 Amendments is the "impact statement." This statement specifies that contracts shall not be made:

> Unless the applicant can demonstrate a reasonable probability that the contract will result in improved teaching techniques or curriculum materials that will be used in a substantial number of classrooms or other learning situations within five years after the termination date of such contracts. (U.S. Congress, 1976, pp. 2192, 2193 and 2201).

While this statement is somewhat lacking in clarity, it does place a great deal of pressure upon R&D personnel to show that their work is useful and forces them to think seriously about D&U.

The groundwork is now being laid for the Education Amendments of 1981 or whatever the legislation will be called. I expect there will be a greater emphasis on D&U in the new law than currently exists in the 1976 Amendments.

Brief Assessment of D&U

The only major assessment of vocational education R&D was undertaken by the Committee on Vocational Education Research and Development (COVERD). This committee was formed in 1974 through a grant from the U.S. Office of Education to the National Research Council of the National Academy of Sciences. The major finding of COVERD (1976) was that:

> The available data do not indicate that vocational education research and development (R&D) findings and products have had an influence on

> the knowledge, skills, or employability of large numbers of students. (p. 1)

The Committee assessed D&U with regard to the major finding and noted that:

> Dissemination and utilization activities have been inadequate for vocational education R&D to have had measurable impact. . . . Although a wide variety of techniques for dissemination have been developed, widespread dissemination is rare, and little attention had been given to increasing the use or adoption of disseminated products. (COVERD, 1976, p. 67)

Much has been written about D&U since the COVERD report. The writers frequently use the COVERD report to document the inadequacies of D&U and then present an assessment based upon their experience. For example, Magisos (1977) noted that "D&U is usually considered last and funded least" (p. 1); he indicated it is evident from experience that:

1. Too much of our reporting is poorly done; this may be only poor reporting, but it is the means by which others judge us.
2. Our ~~information~~ resource system and dissemination network alone won't insure dissemination or utilization of specific information; even so, we aren't using the full potential of these systems.
3. Most of our target audiences need help in passing through (the) stages of awareness, interest, evaluation, trial and adoption.
4. Members of our target audiences adopt at different rates; some want our work before it is done, others aren't aware or interested until nearly everyone else is using it, if ever.
5. Some of our findings and products are easier to adopt than others; those more difficult to adopt will require more intensive D&U efforts. (pp. 1-2)

The problem of D&U exists in general education as well as in vocational education R&D. Orlich (1979), in addressing this concern, noted:

> Even with a massive national effort by the Educational Resources Information Center to disseminate information about educational innovations, the problem of how to make users in the public schools aware of educational innovations still persists as one of the major barriers to change. (p. 5)

Bain and Groseclose (1979) discussed the problem of getting information to teachers to help them improve instruction. They outlined the current system and indicated that the information problem is due to an inadequately developed dissemination system. They predicted dramatic results in the schools "when the Department of Education adopts educational research as its top priority and works hard for coordinated dissemination through all educational networks" (p. 103).

Although much is known about D&U, Hull, Magisos, and Singer (1978) prepared a suggested list of problems and issues for research in diffusion, change, and information systems. The list included the following:

1. A discrepancy exists between national priorities for the dissemination of R&D results and the needs perceived by local users.
2. Processes of knowledge transformation and communication need further development.
3. Practitioner capability to obtain readily and use R&D-based information and practices needs strengthening.
4. Strategies for the diffusion of innovations have not been validated.
5. Information about exemplary programs and practices is not valid or reliable.

6. Methods of conceptualizing and measuring the impact of R&D-based information and products have not been developed.
7. Selective versus comprehensive input to and output of information systems needs resolution.
8. The configuration of roles and relationships of public and private agencies active in D&U needs clarification. (pp.7-10)

The problem of D&U was clearly recognized by COVERD. Indications are that the problem continues to exist both in vocational and general education. It is encouraging to note the work being done by the National Center for Research in Vocational Education to establish a nationwide D&U network. A national D&U conference has been held, six products have been selected for nationwide dissemination, and a number of dissemination activities are underway (Magisos, 1979).

Who is responsible for D&U? Dunham (1979), in a presentation at the National RCU Director's Conference, noted that just as education is a state responsibility so is D&U. He indicated that states are expected to carry the bulk of the dissemination responsibilities within the nationwide network under development.

Recommendations for Improving D&U

Program improvement and D&U are inextricably related. As it has been noted (Magisos, 1979), "The primary purpose of dissemination in vocational education is to improve the program's responsiveness to the needs of individuals and society" (p. 1). A well-developed approach to D&U is essential if vocational education R&D is to achieve the measurable impact found lacking by COVERD (1976).

Improvements in D&U will require coordinated efforts by vocational educators at all levels. Following are some recommendations which I believe will assist in bringing about the improvement.

National and Regional Levels

1. Continue to develop and strengthen the nationwide D&U network. This network includes The National Center for Research in Vocational Education, the Curriculum Coordinating Centers, the state liaison representatives, and the state research coordinating units.
2. Provide for persons in the nationwide network to meet regularly for training and for developing plans to operate the network.
3. Require that federally funded R&D projects include provisions for D&U. These provisions should be coordinated with the existing D&U network.
4. Strive to make R&D efforts at the national level more useful to the field by providing for field-initiated studies and participation by researchers, administrators, and practitioners in the establishment of priorities.
5. Compare the proportion of R&D funds spent on D&U in vocational education with the proportion spent on D&U in other federal agencies. The results should prove useful in developing guidelines for future allocations in order to provide adequate and continuing funds for R&D.

State and Local Levels

1. Establish D&U as a high priority. D&U is largely a state responsibility. Unless the states accept this responsibility, nationwide efforts can only be marginally successful. The assignment of a high priority must, of course, be accompanied by the provision of adequate financial support to carry out the efforts.
2. Provide a clear assignment of the responsibility for coordinating the vocational education D&U activities. The Educatio

Amendments of 1976 (U.S. Congress, 1976) provide that program improvement funds may be used for support of state RCU's and implies that program improvement activities may be coordinated through the RCU. In some states, the RCU director has been assigned the responsibility of coordinating D&U activities. Whether this or some other approach is taken, the responsibility must be clearly assigned.

3. Emphasize D&U activities in the program improvement section of the state plan. The Education Amendments of 1976 (U.S. Congress, 1976) require that the state plan include the uses to be made of program improvement funds. This part of the plan should specify what D&U activities will be carried out, by whom they will be carried out and how the impact will be evaluated.

4. Establish statewide networks for D&U. These networks should be responsible for statewide D&U coordination and should include colleges and universities offering preservice and inservice training for teachers and persons at the local level who have been designated to act as disseminators. In some states, only selected colleges and universities would be included in the networks due to the large number of institutions involved. If this approach is necessary all institutions not in the network would appoint dissemination coordinators to assist in the effort, and community and junior colleges, postsecondary, adult, and private institutions would be encouraged to appoint dissemination coordinators.

The networks may be involved in such activities as establishing resource collections, reviewing R&D products to determine their usefulness, replicating studies or pilot testing products as needed, disseminating products to users and assisting in utilizing and evaluating the impact of products. A publication by Magisos and Kowle (1978) on providing information services would be helpful in establishing the networks.

Conclusions

It seems quite obvious that we in vocational education R&D must become more involved in D&U activities. In addition, we must evaluate and document the impact of R&D products and results. What will happen if we choose not to do these things? I would expect the following results: (1) it will be increasingly difficult to secure adequate funding for national R&D activities and (2) there will be continued erosion in the percentage of funds to the states allocated to program improvement activities.

Are you willing to accept the consequences of neglecting D&U? If not, then I trust that D&U will become an imperative for each of you.

Thank you very much for allowing me the privilege of serving as president of AVERA for 1979.

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