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ABSTRACT

A planning and decision making process to facilitate research dissemination is illustrated with the example of a research project to study techniques for helping young handicapped children make the transition successfully from a special preschool to a public school kindergarten. General guidelines for planning dissemination are listed. Major considerations in dissemination efforts are noted to include the following: dissemination efforts should be closely related to the research project's purpose; make sure the considerations of purpose and audience are entwined; select the best medium/media; make early efforts to disseminate information through conferences, workshops, articles, etc.; and evaluate the program at every stage of the dissemination process. Appended is a set of guidelines for preparing a clear set of instructional materials. (SB)

Dissemination: From Researcher to Practitioner

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INTRODUCTION

Dissemination--to spread abroad as though sowing seed; to disperse throughout; to spread widely. When we plant seeds, we do so with the expectation that they will take root, grow, flourish, and, ultimately, nourish us so that we, too, may grow and flourish.

Dissemination, then, is the heart of our work as educators, whether we consider the needs of students and teachers from inside the classroom or from without. The natural conclusion of our dissemination efforts should be the improvement of education through the widespread use of effective practices and products (Smith, 1982).

Widespread use of educational practices arising from research cannot take place without good communication between researchers and practitioners. The difficulties of communication between these two groups often result in the loss of many promising innovations--losses we cannot afford. Promising techniques are buried in research journals, waiting to be rediscovered. Practitioners are discouraged from trying new techniques because the information provided by researchers and developers is vague and lacking in details necessary for replication.

I would like to talk about a planning and decision-making process which researchers and developers might use to promote more frequent exchanges with practitioners.

PLANNING A DISSEMINATION PROGRAM

Let us assume we are a group of applied researchers setting up a research project. Our project will study techniques for helping young children make the transition successfully from a preschool for children with handicaps to a public school kindergarten. In planning our research, we have consulted with parents, teachers, administrators, and support personnel

from the school system and the community. We intend to continue these contacts as we move through our project. We also intend to keep careful management records: who did what and how long it took; what resources were used; what went wrong; what changes were required. We intend to begin dissemination when our preliminary findings are available and continue the process to its logical conclusion.

General Guidelines

As we begin our planning for dissemination, a few general guidelines will help. We should

1) begin at the beginning. Make plans for dissemination at the time the research project is being designed.

2) plan specifically; write it down. If we consider and note details now, we are more likely to foresee and avoid pitfalls later.

3) plan to approach the members of our audience in their language and with an appreciation for their point of view (Rogers , 1951). Our ideas will receive a much warmer reception if we make it clear that we understand some of their problems and appreciate the value of their work. We will find an enthusiastic audience if our research design reflects some of the interests they expressed when we sought them out initially.

4) balance our purposes with our resources. What can we reasonably accomplish with the financial and support resources available to us? A smaller number of high quality products will be a better investment than a larger number of low quality products.

5) tailor our product to fit our audience and purposes.

With these guidelines in mind, we can move on to some of the specific topics we will need to consider in planning: purpose, audience, media, resources, time, cost, and, finally, evaluation.

Major Considerations in Planning

Figure #1 Purpose. The purpose of dissemination efforts will be closely related to the purpose of the research project. Suppose that the goal of our research is to find methods that work to help children make an important transition. The point of our dissemination program will be to see that the people who are in positions to apply our methods, first, learn about our project; second, are persuaded to use our methods; and third, adapt our methods successfully.

Audience. You have noted, I'm sure, that the considerations of purpose and audience are entwined; assessing both is crucial to our success. Once we have identified our audiences, we need to describe them, spelling out their characteristics. What sort of training and information is our group likely to have? What sort of approach will appeal most? What format is our audience accustomed to using?

In the situation I have proposed, we have many prospective audiences: parents, preschool and kindergarten teachers, administrators, school and community support personnel. Here, we will talk primarily of the teachers; but it is important to note that we have several audiences and that we might need to approach each differently.

What do we know about teachers which will help us approach them successfully? David Crandall (1981), in an excellent article appearing in the CEC special journal issue on dissemination last spring, tells us that teachers are able to change, given the opportunity to try new practices which they consider attractive and improving, practices which are 1) introduced by individuals worthy of emulation and 2) supported by formally designated leaders who are respected. Processing information to assess fit and feasibility of a new practice can be done easily and quickly by veteran teachers, particularly if the information is presented to them in their own

language. As purveyors of an interpersonal craft, teachers are greatly influenced by their perception of the people behind the message. We know, then, if we follow this advice, that our presentations must be made by credible, experienced communicators; we know that we must involve school support personnel and administrators in our dissemination efforts, if our teachers are to receive the support needed to help them over difficult obstacles.

Media. Selecting the best medium or media is an interesting challenge. Considering media in a broad sense, we must decide whether we want to use printed materials, audiovisual media, face-to-face contact, or some combination of these possibilities:

Figure 2

Media

Printed/Audiovisual Media	Face-to-Face Contact
Instructional materials (manuals, guides, etc.)	Conference presentations
Practical papers	Classes
Working papers	Seminars
Professional journals	Workshops
Monographs	Consultations
Books	Demonstrations
Film strips	On-site visits
Slide presentations	(Hot lines)
Video tapes	
Movies	

It has been shown that intervention and involvement are generally the most effective forms of communication about new products; their use makes it most likely that a practice will be adopted or adapted. Other media, in descending order of effectiveness, are training, demonstration, conferences and meetings, and, finally, the written word (Horvat, 1972).

Clearly, some of these media must be used together, if we are to do our job effectively. The issues of time, cost, and resources will be

important factors in our decisions. We should consider the use of some media during the early stages of our project and the use of others as the project matures. A logical sequence might be: telling, showing, helping, training, and, ultimately, involving and intervening. Too often, researchers and developers do only the telling, not taking responsibility for the remaining steps (Smith, 1981).

Early dissemination. In the case of our hypothetical project, our direct contact with preschool and kindergarten teachers will allow us to develop our techniques and test our dissemination methods as we proceed. We will want to ask cooperating teachers what media forms they find most useful, what journals they read, what meetings they attend.

Initially, we might plan to publish articles in several of the journals recommended by the teachers. To lessen the burden of writing, we might make use of a system developed by Phillip Broughton: The Systematic Buzz Phrase Projector. However, if we are truly interested in connecting with teachers, it is essential that we write and speak to them in their language, through their publications.

Figure 3

We might also plan to make several presentations at conferences which we know will be attended by teachers. We will follow up with the workshops we hope will be requested, as a result of the interest aroused at the conferences.

We hope these early efforts to make our audience aware of our practices will be so successful that we can begin replication on a widespread basis. By now, we will have invested substantial resources in developing our practices to improve the ease with which children make the transition from a specialized preschool setting to a public school setting. Additional resources will have been used to prepare the teachers and other personnel who work with the children. Now we have a responsibility to disseminate our successful practices more broadly

so that other educators will not have to use additional resources to invent the same practices. It seems unnecessary to belabor the need to conserve money resources in our present economy.

Replication. Successful replication requires that we, as researchers and developers, identify the essential elements of our practices and communicate them to our audience. Allen, Baldwin, and Fredericks (1981) offer a useful outline of methods from which we might choose:

1) Instructional materials about procedures, which are logically and clearly presented in printed form, are a crucial part of any replication plan. (See Appendix.)

2) Providing management and support materials aids replication. Although such materials cannot anticipate all questions and problems, they can provide indispensable guidelines. For example, in our hypothetical situation, we will need not only instructional materials to spell out the exact procedures for teaching children to use new skills, but also management and support materials to specify the time, personnel, equipment, and other resources required to apply the procedures.

Fine examples of complete instructional and management support materials can be found in The Infant Center (Porterfield, O'Brien, Herbert-Jackson, and Risley, 1977) and The Toddler Center (O'Brien, Porterfield, Herbert-Jackson, and Risley, 1979), available from The Living Environments Group at the University of Kansas.

3) A demonstration site can show how effective a practice is and may have the greatest chance of producing immediate behavior change. A serious limitation of this mode is that such sites are likely to be located in communities whose rich resources are not easily duplicated in other communities. We might want to try a "travelling seminar" in which teachers in many

communities would have a chance to see our methods demonstrated, talk with current users, and consider possible applications to their own settings (Embry, 1978).

4) Workshops and other formal training can also support replication of practices. We should consider that workshops for administrators responsible for delivering services may provide needed backing for teachers in their replication efforts. Although workshops are useful for transmitting a great deal of information in a short time, there is, of course, no guarantee that the workshop participants will apply the information in their home settings. We might use follow-up letters requesting feed-back several weeks after our workshops; such reminders may be just the stimulant needed to encourage adaption of our practices.

5) Providing on-site help would allow us to see the replication and offer solutions and enthusiasm. A disadvantage is the cost in time and travel money needed to provide such support.

6) A hot line could be a useful way for us to field questions of our users as their problems occur. The lack of face-to-face contact and of knowledge of specific conditions at the site are disadvantages of this tool.

7) The training of others to support the replication of a practice becomes a serious consideration as dissemination becomes more diffuse. The use of slides, video tapes or films would allow us to make the same presentations many times with considerable savings in staff time.

These, then, are some of the vehicles we can consider when we are planning replication. There is little question that the combined use of instructional materials, management and support materials, demonstration, personal follow-up and evaluation stands a good chance of producing successful replication. There is little question that a single journal article, a single conference presentation, or any single media effort will produce little of value.

Resources. We need to make a list of resources required to yield the products we are considering. Do we have money for and access to the services needed? Since our resources are limited, we will need to consider which methods are most likely to reach our critical audience. For example, we will probably induce more teachers to adapt our practices through use of a traveling seminar than through distribution of a high quality publication describing our project.

Technical assistance from such groups as CEC, ERIC, WESTAR, TADS, Dissemin/Action, LINC, and National Diffusion Network can provide guidance and services beginning in the earliest stages of our planning. An excellent, annotated list of such resources appears in the Spring, 1981, Teacher Education and Special Education Journal (Krause, Johnson, & Gilmore, 1981).

Time. How much time do we have to devote to dissemination? Will we be able to provide support for replication? Who will carry out the initial effort and who will complete the project? We need to plan our timelines as realistically and as specifically as we can. If time is not specifically set aside for dissemination, it is not likely to occur.

Cost. How much money do we have? What will be the cost of each of the methods we consider appropriate to dissemination? What will it cost to change our minds? A brand new book by WESTAR, Process to Product, contains very useful information about the costs of various media; it also presents detailed information about choice, design and development, marketing of products, and about evaluation of dissemination activities.

Evaluation. "Evaluation and dissemination are equal partners in the transfer of educational practices to new settings" (Allen and Kliot, 1982). Careful evaluation must occur at each stage of dissemination--development, demonstration, and diffusion.

1) Evaluation of the development stage should show how effective the innovation is and identify its essential elements. Here, we need to know whether the practice is clearly specified, whether it can be applied as designed, whether it does what we say it will do, and whether it can be communicated to others. If our research project is well designed, evaluation of the development stage should be easily accomplished in the process of conducting the research.

2) In the demonstration stage, evaluation should show the effectiveness of the practice in a variety of settings and the replicability of the practice by new users. We must ask whether others can be successfully trained to use our methods; whether changes in children and teachers which occur in new settings are similar to those which occurred at the development site; whether adequate supports are being provided; and whether essential elements of the practice are being transplanted.

Successful demonstration may require us to develop specific procedures for training teachers; materials which provide a basis for making decisions when establishing a replication site; and evaluation materials designed to assess effects of our procedures on children and teachers.

3) During the final stage of dissemination--diffusion--evaluation assesses the ultimate impact of the dissemination effort. We need to know whether our replication efforts continue to be effective and whether our supporting strategies are working in the new settings. Have our initial awareness activities reached our intended audiences and produced the desired results? What forms of support from us have improved the effectiveness of our practices and promoted their continued use? Evaluating diffusion is a long-term effort and it requires specific, advance planning; unfortunately, it is seldom done.

Allen and Kliot (1982), are responsible for much of this information about evaluation. In their article appearing in Process to Product, they provide excellent ideas about questions to be asked and information sources to be used during each phase of evaluation.

SUMMARY AND CONCLUSIONS

Successful dissemination results in the improvement of education through widespread use of effective practices and products. The key to successful dissemination is planning--planning from the time a research project is designed through the final stage of evaluation of replication efforts.

Successful dissemination from researcher to practitioner requires, at the very least, a common language, clearly written or spoken. This communication is most likely to occur if researchers and practitioners talk and work together as the research is being developed, carried out, and the practices replicated. The extent to which researchers are able to follow through with personal involvement probably determines the extent to which their practices are adapted.

The extent to which practitioners are willing to change is, of course, a major concern to researchers and developers. We know that adults do not change easily and that the task of inducing practitioners to adopt new practices may seem too costly in time and resources to researchers. However, if we view change as a process which takes place over a period of years, we may find it less overwhelming to plan for than if we feel it can and should take place right away. If we keep in mind the goal of dissemination--that is, the improved quality of education for our children--then we will find the patience and the resources needed to accomplish it.

The advice of the editor of a well-known popular magazine to aspiring writers may well apply to aspiring disseminators: "To be clear, use fewer words. When you have finished, stop."

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Figure 1

PLANNING A DISSEMINATION PROGRAM

GENERAL GUIDELINES

1. Begin at the beginning.
2. Plan specifically.
3. Use the language of the intended audience.
4. Balance purposes with resources.
5. Tailor the product to fit the audience and purposes.

MAJOR CONSIDERATIONS IN PLANNING

1. Purpose
2. Audience
3. Media
4. Resources
5. Time
6. Cost
7. Evaluation

Figure 2

MEDIA

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Monographs	Consultations
Books	Demonstrations
Film Strips	On-Site Visits
Slide Presentations	Hot Lines
Video Tapes	
Movies	

Figure 3

HOW TO WIN AT WORDSMANSHIP

After years of hacking through etymological thickets at the U. S. Public Health Service, a 63-year-old official named Philip Broughton hit upon a sure-fire method for converting frustration into fulfillment (jargon-wise). Euphemistically called the Systematic Buzz Phrase Projector, Broughton's system employs a lexicon of 30 carefully chosen "buzzwords."

COLUMN 1	COLUMN 2	COLUMN 3
0. integrated	0. management	0. option
1. total	1. organizational	1. flexibility
2. systematized	2. monitored	2. capability
3. parallel	3. reciprocal	3. mobility
4. functional	4. digital	4. programing
5. responsive	5. logistical	5. concept
6. optional	6. transitional	6. software
7. sychronized	7. incremental	7. projection
8. compatible	8. third-generation	8. hardware
9. impacted	9. policy	9. contingency

The procedure is simple. Think of any three-digit number; then select the corresponding buzzword from each column. For instance, number 257 produces "systematized logistical projection," a phrase that can be dropped into virtually any report with that ring of decisive, knowledgeable authority. "No one will have the remotest idea of what you're talking about," says Broughton, "but the important thing is that they're not about to admit it."

APPENDIX

Guidelines for Preparing a Clear Set of Instructional Material

TITLE: The title must give a clear idea of the contents.

INTRODUCTION:

1. Define the procedure.
2. Describe when and why the procedure might be used.
3. Specify for whom the procedure is intended.
4. Describe the knowledge and skills needed.
5. Give a brief overview of the procedure, including a statement of the principles involved.
6. Mention equipment and material needed.
7. State special notes or precautions.
8. List the major steps.

BODY:

1. Be sure the introduction is distinct from the body of the instructions.
2. Each step should be a separate heading or number.
3. An introduction should state what is done in the step. Substeps should be listed, if substeps are needed.
4. The procedure in each step should be described, using
   - short paragraphs
   - white space
   - boxes in margins for reader to check off
   - precautions
   - explanations--why certain things are done in order to prevent the reader from skipping a step or doing it another way
   - visual aids, if appropriate
5. Use imperative mood to give directions: "Ask the child to sit down."
6. Use the indicative mode to explain: "It is not necessary to shout to get the child's attention."
7. Use the simplest vocabulary and sentence structure to get the job done.
8. Don't use a telegraphic style which omits words like a and the.

CONCLUSION:

1. Review the major steps.
2. Summarize the interrelationships of the steps.
3. Make suggestions for further applications.

Some Requirements for Preparing Instructional Materials

1. Completeness

   Keep your readers constantly in mind. Write for those who know least about your subject. They will need every aid you can give them. Experts can ignore the directions if they don't need them.

2. Explanation of Technical Terms

   Lest any reader not understand them, define and explain your technical terms. Experts can skip the explanations, but non-experts may be frustrated without them. Most people don't have technical dictionaries to which they can refer.

3. Proper Emphasis

   Number each direction and devote a whole paragraph to it, even if it is only a single sentence. Readers can then check off each item, thinking, "All right, I've taken that step. Now what's next?" The next numbered paragraph will tell them. If you include two or more directions in a single paragraph or under a single number, readers are likely to overlook one of them. Allow plenty of space for each direction.

4. Use of Visual Aids

   Include any diagrams, pictures, graphs, etc. that will help readers to follow a direction.

5. Reference to Visual Aids

   Put visual aids where the reader can most easly refer to them. If such an aid can be on the same page and near the direction it concerns, it will be most conveniently placed. If it is on a different page, readers may not refer to it when they should, and consequently may misunderstand a direction. Your own experience will tell you how irritating it is when a textbook prints a diagram, picture, table, graph, etc. on a different page from the explanation of it. If it is impossible to place it on the same page, put it on the next page.

6. Explanation of Visual Aids

   Don't fail to allude to or explain any visual aid. Usually it is not enough merely to refer to it, as in writing "See Figure 1." Add any explanation that will help readers to follow your directions. Too often the writer assumes that the meaning of a visual aid is self-evident and leaves many readers to puzzle out its meaning for themselves.

7. Justification for a Direction

   Be sure to give the reason for any direction, especially if your readers might think, "Why do that?" Otherwise, they might follow a different procedure which at the moment seems to be preferable.

8. Explanation of General Principles

   Explain any general principles that readers ought to understand if they are to follow your directions easily. If the principles underlie the whole procedure, explain them in the introduction. If they refer to only one direction, put the explanation after the direction.

(over)

9. Suggestions for Avoiding Mistakes

Warn readers when there is a possibility of making a mistake. Novices especially may need warning to prevent wasting time or ruining expensive equipment. Mistakes due to lack of experience or skill may not be avoidable, but those due to ignorance or carelessness are avoidable.

10. Avoidance of Telegraphic Style

Don't leave out words like the and a, or the subjects or objects of verbs (of course, the subject of the verb is omitted in the imperative mood), words necessary for full grammatical expression. In the average set of directions you will save less than 5 percent of your space in using it.

11. Consistency in Point of View

Use the second person imperative whenever you are writing a direction. But if you are stating a general principle or giving some useful supplementary explanation, use the third person. For example, after a direction "Point to the symbol for one of the items on the students board. Do not say the word." in the same paragraph could follow the explanation. "This procedure of matching the symbol to the object will help expand the student's labeling vocabulary."

12. Use of Clear Transitions

Make all your transitions from section to section and from direction to direction as clear as possible. Proper use of headings, numbers, and paragraph indentations will usually be sufficient. Don't insert unnecessary transitional words and phrases. Sequence in time ordinarily governs the arrangement of directions. Only if two or more things are to be done at the same time would a transitional phrase like "at the same time" or some explanation be needed.