A rationale, a model, and several suggestions are presented for increasing and maintaining the rate of classroom implementation of new teacher skills developed through inservice training programs. Because the health-related instructional areas have received insufficient attention in post-training studies, the suggestions are presented in the context of drug education. Suggestions include: (1) inform all of the involved groups—students, teachers, parents, school officials, community members—of the drug education curriculum and make them aware of each stage of program implementation; (2) gain cooperation and assistance for program implementation; (3) ensure commitment of the various groups involved; (4) train all groups to deal with drug-related questions; (5) maintain contact with all involved groups; (6) anticipate trouble areas; (7) be experimental, but not sloppy; (8) be realistic—expect things to go wrong; and (9) listen to others. These suggestions are considered to transcend the drug education context in which they were researched; further research is needed to substantiate claims of their effectiveness for other health-related areas of inservice instruction implementation. (MM)
Suggestions to Maximize Implementation of
Inservice Programming for Health Related Instruction*

by

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Objectives

The primary objective of this presentation is to present a rationale, a model, and several suggestions for increasing and maintaining the rate of classroom implementation of new teacher skills developed through inservice training programs. Secondary objectives include the presentation of relevant evidence to support the efficiency of these suggestions and to review the concomitant requirements and difficulties of these interventions in the context of drug education.

Rationale and Introduction

Inservice teacher training programs have, as a typical goal, the development of cognitions and/or skills which teachers are expected (implicitly, at least) to utilize to enhance student learnings/behaviors relevant to the salient instructional objectives. Especially for certain of the health-related instructional areas (sexuality, drug education, etc.), insufficient attention has been given to developing and evaluating strategies which will maximize the expected implementation and continued evaluation of the actual teacher classroom behaviors encouraged by inservice programming.

In the case of drug education, for example, very few evaluations of post-training implementation exist in the literature. Those which do exist are usually characterized by low (30% or less) to moderate (50%) reported implementation rates at various times following the formal training experience (see Kleinman and Olsen, 1973; Simmons, 1973; Keller, 1974; Hammond, 1975). Further, activity rates, per se, do not capture the actual practices and impact
of the teachers "involved" in drug education. Indeed, those studies and reviews which examined the impact of teachers on drug taking behavior and attitudes tended to emphasize that their efforts were largely ineffective (Swisher, Crawford, Goldstein and Yura, 1971; DeLone, 1972; Macro Systems, Inc., 1972; Warner, 1973).

It is clear in this context that "something" is out of order. An incredible amount of time, money and personal energy is devoted to inservice teacher training and yet the critical element of teacher implementation in the classroom is, in large measure, ignored or insufficiently attended. This presentation, then, will summarize the findings and experiences (whether research-based or serendipitous) of the Addictions Prevention Laboratory's (APL)* four years of direct involvement in initiating and sustaining teacher activities in primary drug abuse prevention in the schools of Pennsylvania. However, the suggestions (and the model) contained herein are generic to several kinds of health related inservice training.

An Intervention Model

It has been my experience that the inservice training in Pennsylvania has often been approached with a somewhat cavalier attitude and a naive faith in the abilities (and desires) of participating teachers to take their new knowledges and skills and transfer them to the classroom. In the early 1970's, with small grants from the Office of Education, I was involved (as a

*The Addictions Prevention Laboratory (APL) is funded by the Governor's Council on Drug and Alcohol Abuse of the Commonwealth of Pennsylvania via a grant to the Pennsylvania State University. One of the primary goals of the laboratory is to facilitate teacher training in effective primary prevention classroom strategies. Another major goal of APL is to conduct research on the effectiveness of new, as well as established, primary prevention strategies.
graduate assistant) in teacher training programs for drug education which offered fifteen hours of instruction in pharmacology, some communication skill training, guest lectures by knowledgeable folks in law enforcement, and plenty of discussion. It was anticipated that these "trained" teachers would return to their schools and actively begin to teach drug education, mobilize their colleagues and the school administration, and so on. This expected phenomena was called the "ripple effect." Unfortunately, nothing much ever happened (Keller, 1974). Why? Where did we go wrong?

By far, the overwhelming contribution to implementation failure springs from the typical approach to teacher inservice and continuing education training. This approach may be summarized as follows:

1. devise an interesting and timely course
2. pick dates and a training location
3. advertise the course with newspaper ads and mass mailings to schools
4. teach the course the required number of hours
5. turn in the grades, collect fees
6. repeat steps one through five

While this approach does much to give the appearance of professional activity for both teachers and inservice instructors, several questions may be posed which bear directly on the implementation problem:

1. Are the teachers really interested in implementing?
2. Have the teachers been told how to implement?
3. Would the school officials and parents support the teachers?
4. What happens if teachers have a problem or want to ask more questions?
5. Who will supply needed resources?
6. Etc., etc.

These questions, and perhaps dozens of others, will have to be answered before implementation has a fighting chance to occur in the real world. If teacher action is the real goal of inservice training in the health related areas (if it's not, please stop here!), then the following model may be of
assistance for conceptualizing the extent and magnitude of the necessary interventions.

First of all, note that for each possible point of intervention (Program Planning Stage, Inservice Training Stage, and the Post-Training Stage), a two-dimensional matrix may be formed which portrays the interaction of the intervention tasks with the intended audience. Depending upon the goals of the inservice training staff, and their available resources (to be discussed later), each of the thirty-five blocks on the face of the cube could be given consideration at each point of intervention; this means a total of 105 possible interactions could need attention!

Fortunately, the inservice trainer rarely would have to personally carry out all the tasks himself/herself. The model is meant to serve as a planning and coordinating device - not as a taskmaster.

Using the Model

Basically, at each of the three intervention points, attention should be given to each cube in the matrix and several task-specific questions should be posed and considered as they relate to each of the key groups in the "audience."

Who must (can, should) be informed at each stage? And how much do they need to know?

What is the nature of the information they must have in order that their cooperation and assistance may be obtained?

How should this information be transmitted?
What assistance and cooperation will be required (requested) from each group? Or, how critical is the assistance of each group at each stage?

How can the personal commitment of each group be initiated and maintained?

Which groups will need continued contacts maintained at each stage?

How may contacts most efficiently and effectively be maintained?

Which groups will need specific training in order to carry out their function in the implementation plan? Who will train them?

Other questions could likewise be posed, using the model as a stimulus. The key point is that these questions are directed at a goal of successful implementation and follow-up, not just at the details of the training program.

Additionally, it should be mentioned that the model represents a fairly complicated process - not an event. Perhaps the most practical use of the model is to encourage experimentation with different schemes for improving implementation under different external conditions and restrictions. Certainly, if I knew the answers to the above questions, a simple listing of solutions would suffice.

Maximizing Implementation: Some Suggestions and Examples

Over the several years that I (and many of my colleagues) have been involved in trying to investigate ways to increase implementation of drug education programming in the schools of Pennsylvania, I have often been struck with feelings of futility and frustration. Just as we were feeling smug about the success of a strategy which gained the support of a community agency, that same strategy would fail dismally with a similar agency in another area of the State. We would gain tremendous cooperation from school officials in one district and, almost literally, get booted out of another district. These events, occurring again and again, led to the search for some fairly stable
principles which could serve to guide our efforts. The following suggestions, then, will serve to illustrate some possible uses of the model for planning an inservice drug education program with a goal of maximum continued implementation by the trained teachers.

At the outset, I wish to acknowledge that many of the suggestions are not solely the product of my grey cells, but rather are derived from several research and training reports of the Addictions Prevention Laboratory (Bandt, et al, 1975; Casey, 1974; D'Augelli, et al, 1975; Hammond, 1974; Knolle, 1974). Also, for the sake of the prose, I will discuss the Intervention Tasks in the model and simultaneously collapse or "cut across" the Intervention Points and the members of the Audience as appropriate to the discussion. Hopefully, the confusion this may cause will be minimal, but it is impossible, in this paper, to fully discuss each cube in the model.

1. INFORM – Drug education is a very sensitive topic in many communities, especially if the focus is on student values, decision-making, affective techniques, etc., in addition to cognitive information about drugs and their effects. Whether the goal of the inservice training is to implement an entire curriculum or to set up a drug information resource center in the school library, it should be obvious that various groups need to be informed at all points of intervention.

As examples, in the Program Planning Stage, an informed community agency, such as a local Drug and Alcohol Council, can provide program planners with specific knowledge of the local drug problem. Likewise, they may be able to assist with gaining entrance to the school, arrange for speakers, provide films and pamphlets, etc. This stage is also the point at which school
officials should be completely informed of the purpose and goals of the training; if they are irrevocably opposed to the intended implementation plans, it is best to find out early so you can seek out another school or district. And don't forget the students and the school nurse - valuable and often overlooked resources for planning health related instruction.

In the Training Stage, the information task is no less important. Do the teachers really know what will be expected of them after training is over? Are school officials and parents aware of the new skills teachers are learning? Several of the APL training centers have, at various times, invited school principals, students, community agency personnel, and others to visit and observe portions of the training. Frankly, the success of this idea rests on the relationships between the teachers and the observers; if the teachers do not want visitors, they don't have visitors! Obviously, several means can be utilized to keep interested parties informed about the content, scope and purpose of the training (e.g., newspaper articles, a short presentation to the PTA by teachers-in-training, etc.).

In the Post-Training Stage, be sure to keep the parents and community informed of the activities of teachers as they implement their training. Periodic reports to school officials are also important, especially if they are keeping an "eye" on your efforts.

2. GAIN COOPERATION AND ASSISTANCE - Since successful implementation is a complex affair, you will have to obtain the help of various groups at each intervention point. The personal prerequisites of the prospective trainer seem to be good credentials, a willingness
to negotiate, and a good record with previous efforts.

During the **Program Planning Stage**, the active cooperation of teachers, school officials, community agencies, and related agencies are the most critical since the successful program must consider and meet local needs and restrictions. Unfortunately, there are no foolproof suggestions for enhancing cooperative efforts. However, community agencies and Intermediate Units usually are quite willing to cooperate with and assist anyone with a sound plan. These groups, incidentally, can usually provide the most assistance with the details of planning the inservice experience. Good cooperative arrangements, established early in the Planning Stage, will often carry through both the Training and Post-Training Stages.

Obtaining cooperative responses at the **Training Stage** typically center on the teachers-in-training. Particularly if you were unable to "screen" participants, several teachers will most likely be there for the primary purpose of 1) obtaining course credit or 2) interest in the drug problem. While these goals are not incompatible with implementation, they certainly are not "necessary and sufficient" conditions. Interestingly, the factors which serve to increase teacher implementation at this phase relate to such intangibles as personal persuasiveness, and the perceived quality of the inservice experience. In short, the instructor must turn the teachers on!

Continued teacher and school cooperation with implementation efforts following formal training seems to be enhanced by a readily available resource person whom the teachers or school
officials can call in for help with problems, to give booster training, to serve as liaison/spokesman between them and the community or parents, or just to provide some encouragement when times get rough (see Knoll, 1974). This resource person could be the training instructor (if geographically feasible) or even better, an enthusiastic, knowledgeable, and respected representative from the local community Drug and Alcohol Council.

3. ENSURE COMMITMENT — Several strategies have been attempted with (or perpetrated upon) the various important groups mentioned in the model. One trainer invited each teacher to sign a declaration of commitment to implement their skills following formal training (see Casey, 1974). While the efficacy of this strategy may be questioned, the idea of publically expressed intent to act is a key element in obtaining commitment at all intervention points. Another general strategy is to first get the action to occur and then publically acclaim the person. Several ethically defensible strategies are possible.

For example, teachers can be required to pre-register for the training as part of a "team" and then have the school principal sign the pre-registration form to indicate his/her awareness that an "action" team has been formed and to indicate his/her support for these teachers.

During the Training Stage, a reasonable strategy would be to have the participating teachers prepare and present a plan for implementation to the school administration and other teachers. Newspaper spots which identify the school and the teachers as involved professionals are also possible stimuli to remain involved.
In the **Post-Training Phase**, it is very important to continue to praise the implementation efforts of the teachers. If reports are written, be sure to include the names of all cooperating teachers, community agency personnel, student coordinators, etc. (I would hope, of course, that such praise is also quite genuine rather than purely manipulative.)

4. **TRAIN** - While the maximization of implementation should theoretically involve the appropriate level of training for all audience groups, this is so often impractical that no serious consideration will be given here. I will mention, however, that a program to train parents to deal with the drug related questions and problems of their children (as well as training them to deal with other problems in the parent-child relationship) has been conducted through APL (D'Augelli and Weener, 1975). Additionally, APL has sponsored separate training sessions for educators and community agency personnel to help them understand the scope of the primary prevention effort and explain their possible functions in the overall prevention scheme.

The major barriers to commitment, as well as cooperation, are lack of teacher confidence in their skills, lack of support from school officials, and poor teacher skills—all of which lead to failure experiences, frustration and withdrawal from implementation. These difficulties are best faced during the [Inservice Training Stage](#) (see Bandt, et al, 1976).

The [Inservice Training Stage](#) must be of sufficient length and of adequate design to allow the acquisition and practice of the skills which the teacher will be expected to carry with them
to the implementation phase following the formal training. If they are not confident or have several failure experiences, then they won't implement their learnings in their classrooms - it's that simple. One of APL's solutions has been to incorporate practice in in-class implementation into the training, making arrangements for the inservice instructor (or a qualified assistant) to observe the teachers' efforts on-site and provide feedback and assistance. This approach has worked quite well where permission could be obtained to visit the teachers' classrooms. As an alternative, teachers can practice on each other. For a more comprehensive discussion of the importance of the training task see the report by Bandt, et al (1976).

Additional booster training sessions in the Post-Training Stage has also been of assistance in maintaining teacher skills and implementation rates.

5. MAINTAIN CONTACT - This final task in the model is so interwoven with the other elements in the model that the temptation to reject it as a separable task is almost overwhelming. It is maintained as a separate element, however, to serve as a visual reminder of the necessity for continuous consideration of this function with all involved groups at all stages of intervention.

For each situation and for each group you work with, you will have to determine the most effective and efficient means for keeping in touch. It's generally a good policy to follow-up all critical contacts with a letter which details the nature of the contact, the results, and the agreed upon tasks (if any); sending copies to others who will also need that information.
One useful, and perhaps non-obvious, contact in the Post-Training Stage involves pulling all involved critical personnel together for at least a half-day session to review experiences, revise materials, share ideas, plan the future, etc. For complex operations this may require periodic retreats of one or two days duration.

Maintaining contact between participating teachers in the Post-Training Stage may be facilitated by such simple devices as a list of names, addresses and phone numbers of inservice participants. Also, Post-Training social events and/or booster training sessions (or gripe sessions) may be planned to encourage interactions.

Additional Considerations

Over the past four years, all of the above strategies (and many others) have been attempted, at one time or another, by the APL training staff. It is fair to say that most of the suggestions offered herein have been field tested and evaluated, and will yield good success in most situations. It is also fair to say that many of the above activities could not have been carried out without the considerable financial and staff resources of the Addictions Prevention Laboratory. For funded training projects, cost-benefit and cost-effectiveness issues are major concerns of the funding agency. Just how much are we willing to spend to train teachers to a high skill level? How much will it cost to achieve specific goals of prevention in the school setting? The answers to these and similar questions are almost always dependent upon the prevailing public and legislative attitudes toward the crisis which these preventive efforts are supposed to avert.
For those inservice planners and trainers who, for lack of funds, cannot "enjoy" the challenges associated with the preceding questions, the real issue becomes: How much time and personal energy can you summon to maximize implementation? Fortunately, as discussed earlier, the actual training stage itself seems to be the most viable spot to encourage implementation. By attending to the model (Figure One), and with a degree of creativity, many desired outcomes can be obtained with only moderate additional expenditures of your time and energy beyond the actual training stage.

Some additional tips are:

1. Try to anticipate trouble spots. Dealing with constant crises is very frustrating for all concerned. Often school official and local community leaders can point out likely sources of difficulty and help you conquer or avoid them.

2. Be experimental and stay loose (not sloppy!). Continually evaluate your efforts. Have several alternatives in mind in case one approach flops.

3. Be realistic. Expect things to go wrong - they will. A strategy that works well ten times may fail the next time you try it.

4. Listen to others; they may know something. Teachers usually know their own students better than you do. If they tell you a particular prevention technique won't work with their students, respect their opinion and solicit alternatives. The same recommendation holds for all individuals and groups in the implementation plan.
Conclusions

The available evidence, while often sketchy, indicates that an intense level of activity at all three stages of possible intervention can induce a substantially higher rate of classroom implementation of the skills acquired through an inservice training experience. Of the three intervention points, the inservice training stage appears to have the most potential for increasing implementation (Bandt, et al, 1976).

It is clear that a complex of factors impact on the success of training personnel in their attempts to increase and maintain implementation following training. Included among these are financial resources, personal persuasiveness, the subject matter, the nature of the actual inservice experience, local needs, etc. In short, the suggestions offered here are not at all foolproof.

While these suggestions are considered to transcend the drug education context in which they were presented and researched, further research is needed to substantiate this claim for other health related areas of inservice instruction.

The primary significance of studies of teacher implementation following inservice training lies in the ultimate goal of all health related instruction "Did it work?". Without an adequate system to encourage and maintain classroom implementation of inservice learnings and skills, the critical longitudinal evaluations of impact on such health concerns as smoking, obesity, drugs, venereal disease, etc., will remain elusive.

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FIGURE ONE: Model for Maximizing Implementation of Inservice Programming
REFERENCES


