New models of research and training combined with dissemination techniques can contribute to relevant social change. The Ecological Psychology Program at Michigan State University, a graduate training program which focuses on model building and implementation research, offers ideas on the plausibility of social programming. The process would involve a new social and professional role involving the innovator, first, in the creation of an alternative subsystem model combining research and training, in a community context and designed to meet social needs, and, secondly, in implementation of the model through dissemination, diffusion, and adoption. Examples of types of research that have been completed or are underway by the faculty and staff of the program, and related problems, are discussed. Problems of implementation research focus on getting individuals and institutions to adopt social innovations. A program of research demonstrating both the model building and implementation aspects is discussed. This program, the Fairweather Community Lodge Program, was designed to be a permanent social support for released psychiatric patients. Attempts were made for adoption of the lodge program throughout the country. (SJM)
DESIGN AND IMPLEMENTATION SKILLS FOR SOCIAL INNOVATION
Louis G. Tornatzky and George W. Fairweather

One of the simple premises of the Ecological Psychology Program at Michigan State University is that the need for social change is self-evident. It is a second premise that the contemporary inability to meet this need for change is often the result of confusion and uncertainty about what to do, and how to do it. There is a gap between what is known about human behavior, and those programs that are ostensibly designed to meet our social needs. It is also apparent that social scientists have had limited impact on social programming in this country. In spite of this, it is our optimistic belief that the methodology of the social and behavioral sciences can be combined with the traditions of the social reformer into a meaningful tool to address our nation's problems.

A New Social and Professional Role

To be specific, what we are attempting to do in the Ecological Psychology Program is to create a new social and professional role -- the Experimental Social Innovator. We intend to combine the creation of social change with the study of social change -- a mixture of humanism, social action, and scientific skills. While all of these traditions have existed in psychology and other professions, they have generally existed independently of one another. This has resulted in a considerable degree of role schizophrenia. There have always been psychologists who have been "concerned", yet more often than not this concern has had little bearing on what is done in their research, what is taught in their classroom, and what has shaped their professional careers. Similarly, on an institutional level it has become increasingly
popular for institutions to take policy positions on relevant social issues. Yet these same institutions do not let these policy positions influence the day-to-day institutional practices and structures which they maintain. In short, neither personal concern, nor institutional alarm, has had significant effect on what psychologists do in their daily professional lives. This has been related to a disinclination to study naturalistic social phenomena, and a reification of concepts developed through laboratory experimentation. What has resulted is a false optimism about the direct relevance of academic psychology. On the one hand it has been assumed that laboratory-developed concepts can be applied to social problems, and on the other hand it has also been assumed that scientific concepts will be used via their dissemination through the scientific community.

Regarding the latter, it would appear that there is a naive conception of the diffusion process. In recent years evidence has accumulated -- some of which will be discussed later -- that the diffusion of social scientific innovation is an extremely complicated and uncertain process. It is unlikely that empirically validated concepts from laboratory research will have direct and unequivocal relevance on programs unless those individuals who are familiar with those concepts directly assume responsibility for the development of the alternative social programs. In other words, the R and D of social R & D cannot be separated. The innovation development and diffusion process incorporates such a lengthy chain of activities that any break in this chain will insure failure of the end product. We can never assume that because a program works or is conceptually strong, that it will spread like the Lula hoop. The scientists must by necessity have an active role in the dissemination, diffusion, and adoption process.
It is also inappropriate to assume that concepts developed in the laboratory will "work" in the community context. In other words, the essentially artificial environment of the laboratory may be so removed from the naturalistic social world that findings in one will have only limited validity in the other. I think that we are acquiring sufficient knowledge about the situational specificity of behavior to have grave doubts about concepts developed in the laboratory that are not tested experimentally in the social world. This has a clear implication for the role of the social scientist and psychologist. Not only must concepts be applied to the social context, but the programmatic manifestations of concepts must be experimentally evaluated.

Let me sum up at this point. We are proposing essentially two aspects of a new social and professional role. The experimental social innovator should on the one hand be involved in the creation of alternative subsystems or models, in a naturalistic community context, that are designed to meet pressing social needs. This aspect of our research and training we have loosely labeled model-building. A second aspect involves the pursuit and study of diffusion and adoption. In other words, the experimental social innovator must be directly involved in the wide-spread -- possibly nationwide -- implementation of those models that have been found to be effective. I would like to give you some examples of these types of researches that have been completed or are underway by the faculty and staff in our program.

Model Building Research in a Graduate Training Program

Our first examples will be from the area of model-building research. First of all, I would like to emphasize that this type of research is not identical with what has loosely been described as program evaluation research. There are some similarities. For example, we have a commitment to the use of the experimental model, which of course necessitates the training of students...
in experimental methodology, design, and traditional aspects of parametric and nonparametric comparative statistics. In addition, we have made considerable and effective use of multi-variate correlational techniques such as Tryon's Cluster Analysis. The principle way in which model-building deviates from "program evaluation" is that we endeavor to be directly involved in the actual service program which is being researched. Once again this relates to the social role model which we are trying to develop: a model that combines both action and research skills and activities. One example of this type of research is the work of two graduate students affiliated with the Ecological Psychology Program. These students had an interest in community participation in local health planning. They spent considerable time observing, gathering preliminary data, and learning the politics of the local health planning counsel. After a year of this activity, and a thorough literature review, they came to the conclusion that the principle variables affecting consumer participation were two-fold. On the one hand, community persons were dominated by the greater expertise of those medical professionals in the planning meetings. On another level, the community participants had little skills in parliamentary procedure, protocol of meetings, and in general skills of presenting themselves in this type of social context. These students developed an experimental consumer support system which was designed to transmit these skills to the participants, and which would eventually be a self-perpetuating support system for the consumer group. In other words, the student action researchers would eventually delegate their role as trainers to the autonomous group itself. This support system was established within the context of an experimental design with participant volunteers being either randomly assigned to the experimental program or not. The program was supported by outside funding and extensive internal process and behavioral outcome measures were taken.
While the explicit results are unavailable at this time the important thing to point out is that here two graduate students were able to mount an important social program, set up an experimental evaluation, and survive in the political morass of the community context.

A second example of student-originated model-building research is in the area of drug treatment programming, since it highlights some difficulties which our students may encounter. In our local community a comprehensive drug treatment program has recently been established. The program has four modalities of treatment: halfway house, methadone detoxication, residential lodge program, and outpatient psychotherapy. One of our graduate students was able -- after considerable negotiation -- to become the research unit of the project. He has been established as the central intake point for the entire program and his role has been to gather initial entry data on the participants, set up a matching procedure, and randomly assign volunteers to one of the programs. He is gathering internal process and outcome data in terms of employment, staying drug free, staying arrest free, and so on. In contrast to the first study, this student has had considerable difficulty in maintaining the continued integrity of the experimental design as initially established. He has been criticized for denying service, for being biased in assigning clients, and for being a "data freak". Most of this has come from the individual program directors who are of course operating from a role in which their program's success and growth is a desired outcome, while the viability of the total program is a questionable and abstract goal. One of the obvious difficulties is that the drug research was set up in such a way that the program evaluative effort was essentially divorced from operational control of each of the specific programs. This has resulted in a fragmentation of the research and program activities, and in the inevitable conflict between service and research.
In other words, the ESI model-building role is not being fully exploited in this particular research.

**Implementation Research**

Now let us consider implementation research. As mentioned previously, one of the recurring and consistent problems of involvement in community change activities is getting people to do something which they may not want to do. This is no less true when in fact a tested model has been developed with considerable data supporting its effectiveness. We have found it useful to consider two aspects of the implementation process. One concerns the problem of getting institutions to adopt social innovations. A second related, but not identical, problem is that of getting individuals, independent of their role in a complex organization, to adopt new socially relevant practices.

An example of the first type is a research in which one of our students in the Ecological Psychology Program has been involved. This student demonstrated an early interest in problems of aged populations. She made contacts with various programs and became particularly impressed with the efficacy of an in-hospital milieu therapy program in a neighboring community. She also became increasingly impressed with the difficulties with which this program had been confronted in getting other hospitals in other parts of the country to adopt it. Although the program had been offering workshops for staff from around the country, they had no data, nor any clear indication, of to what extent the program was being adopted or implemented by workshop participants. Based on previous research -- which will be discussed later -- this student focused in her project on the problem of fostering participation in planning and decision-making within those institutions which could be potential adopters. She established an experimental design which would be applied to workshop participants.
after they returned to their home institutions. The principle variable under consideration was how follow-up calls to these institutions might be done in such a way as to foster greater intra-organizational participation. Operationally this meant involving more or less people at the home institution in the follow-up call procedure. The student experimenter will offer periodic telephone consultation to workshop participating institutions, and will concentrate her calls on either a single contact person, or on a number of contacts who might interact and produce a greater degree of participation. Once again I must leave you in suspense since the results of this study are still not in. This project does illustrate the direction in which our program is aiming. Not only will it be addressing experimentally a program of institutional change, but there is likely to be some change produced in the process.

A second student project which I would like to discuss involves adoption of environmentally relevant practices. In contrast to the just-discussed research -- which involved institutional change -- this study is concerned with effecting individual change. For example, while it is clear that institutional pollution is a problem, it is also true that the contribution of individual citizens is both significant and implicitly supportive of the institutional problem. The question becomes, how does one influence citizens to buy returnable bottles, use less paper, recycle materials, and so on. A related problem is: how does one get people to do this when one has limited money and limited manpower resources. One of our students has decided to manipulate an old method -- a newsletter mailout -- as a mode of communicating these ideas to individuals. While the data is becoming increasingly clear that printed communication is a less desirable and effective form of effecting attitudinal and behavioral change than other modes, it is also clear that this mode of communication will continue to be
used because of its ease and economic advantages. What this research will involve is a basic environmental newsletter mailed to randomly selected families within an urban community. The experimental design will focus on ways of supplementing the basic newsletter with person-to-person probes and neighborhood social influence. Potentially, this research could have implications for such areas as family planning, political campaigns, and so on. Once again the outcome will hopefully be an addition to our change tactics.

Towards Programmatic Social Change Research

Now what I would like to describe is a program of research in which I have been involved in, and which will demonstrate both the model-building and implementation aspects of the total research program. This research has extended over a period of eight years with Bill Fairweather assuming the role of principle investigator, spiritual guide, and inspirational leader. The first phase of the research which would be the model-building phase was accomplished during the period from 1963 to 1967. The model that was created was the Fairweather Community Lodge Program which many of you may be familiar with already. The social problem which this model addressed was the recurring difficulty of released psychiatric patients to maintain themselves for any length of time after release. Previous research by Fairweather and his associates, and other investigators, indicated that the principle variables related to community tenure were two-fold: having a job, and having some degree of social or family support. The lodge program was a model social subsystem incorporating these features designed to address the problem of chronic recidivism. Without going into great detail let me briefly outline some of the features of the lodge.

The lodge society was intentionally designed to be the permanent social support for released patients. It was not only a place to live and
work, but also a social system which would serve as a replacement for the non-existing family. Operationally this meant that the lodge was designed to be -- an eventually did become -- autonomous and free from direct staff supervision and control. It was organized into problem-solving small groups in order that the patient members would have control over their own formal and informal incentive system. Problems of group living were solved by the group with minimal staff intervention. The staff role was largely a developmental one of weening the lodge society to the point where it could sustain itself both socially and economically as a social system. The economic support system was both a reflection, and a reinforcement, of the larger group structure. The lodge was organized into a janitorial business with work crews, crew chiefs, assistant crew chiefs, and workers. Once again failure to comply with the needs and demands of the business would be rewarded or punished by the group decision-making process. This then was the program.

From a research standpoint, the lodge program filled one cell of an experimental design. Volunteers were either randomly assigned to the lodge program, or assigned to more traditional, yet complete, after-care services. The lodge and the traditional after-care programs were compared longitudinally over a period of four years on such outcome criteria as remaining in the community, employment, and self-satisfaction. In addition, the lodge program was compared to traditional after-care in terms of its cost of serving this population. On all these outcome criteria, the lodge model was demonstrated to be both statistically different and humanistically better than the traditional program. In short, a venture in experimental model-building had been successful: a model had been created. Now the question was how to get other relevant institutions, other hospitals, to adopt the new program.
This is the point in time when it became apparent that diffusion of the new innovation would be by no means automatic. The investigators at that time disseminated the data about the lodge program to various meetings such as the one we are attending today. In addition, publications were written and distributed through the normal channels of scientific communication. The outcome of these activities was generally nil in terms of further adoption of the lodge program. In addition, at the termination of the initial lodge research, the hospital which had supported the program administratively for four years was unwilling to continue it as an ongoing part of the treatment program. Although the cost benefit and treatment outcome data were highly impressive, these rational aspects of the new model were largely ignored. The principle objection to an ongoing or wide-spread adoption of the model was that it would disturb the traditional professional roles within the treatment institution. In other words, it was difficult to get people to change. Fairweather and his associates at this point became involved in a four-year study investigating the implementation process. It was decided to focus on obtaining adoption of the lodge within mental hospitals throughout the country. This research proceeded in two phases. An initial phase was designed to investigate the parameters of persuading and informing mental health institutions about the new innovation. Four variables were looked at. One concerned the modality of approaching and persuading the hospitals. A written approach was compared to a workshop approach was compared to a demonstration program approach. A second variable under consideration was essentially an organizational one. Hospitals were initially approached at different levels in the organizational hierarchy. Two other variables that were looked at were urban versus rural location, and state versus federal governmental
affiliation. The sample for this phase of the research was 255 hospitals throughout the United States. The outcome of this phase was a "yes" or "no" decision on the part of the institution to proceed with actual lodge implementation.

The second phase of the research involved investigating two approaches to aiding the adoption process itself. For some of those hospitals who had volunteered in Phase 1 a person-to-person consultation visit was arranged. For the other half of the hospitals, a do-it-yourself manual on how to set up a lodge was developed and sent. Without going into all the research data of this particular project there are some things I might point out very briefly. From our data we have begun to develop a number of guidelines for effecting institutional change in the mental hospital. While all of these need to be spelled out in greater specificity, they are as follows:

1. Face-to-face interaction and consultation work better than written materials. In fact, written materials work lousy in persuading institutions to change, and in influencing the adoption process.

2. Action-oriented approaches seem to work better than anything else. By action we mean that obtaining behavioral commitment leads to more behavioral commitment.

3. There seems to be a considerable effect of participative decision-making on fostering the persuasion and adoption process.

4. There is limited, if any, evidence for the effect of financial resources in fostering the change process, nor for any influence of geographic locale, or state versus federal affiliation.

5. There seems to be needed a foot-in-the-door type of technique used in approaching and persuading the hospitals, with less reactive techniques such as a brochure being applied initially, followed by more powerful techniques
later on.

6. There is little evidence that convincing the formal power structure of the organization is essential for change.

7. The spontaneous diffusion of a complex social innovation is likely not to occur. Some external change agent is needed.

8. There appears to be a need for a cohesive group of inpatient people to spear-head the change effort. An individual advocate is not enough.

This brings us back to our initial comments about creating a new model of research and training. The program of research that has been outlined is an example of the role model we are trying to develop. On the one hand, it clearly combines both action and research activities. A second aspect is that the principle locus of activity is in the community and not in the academic institution. A third aspect of this programmatic research is that all aspects of an innovation-building process are linked together. In other words, an initial model is developed and tested; an implementation effort -- based on hard data on the implementation process -- is fielded.

Problems of Graduate Training in Community Research

Now that we have given a brief description of the research and training model which we are trying to implement, and have presented some representative examples of model-building and implementation research, let us briefly describe some of the difficulties that we have experienced in establishing a graduate training program in the context of a university psychology department. Many of these comments will have relevance for the larger question of the appropriateness of a university as a base for action research and social change.

One of the initial problems, oddly enough, is that of recruitment.
In order to locate potential students and faculty who can do this kind of work, or who can be trained to do this kind of work. Our experience in this regard has substantiated a recurrent finding of the social psychological literature: that there is only a very limited relationship between verbal behavior and performance. In terms of students, this has meant that we have often been deluged by students and potential students who express a great verbal willingness and desire to change the world. When confronted with the difficulty and tediousness that is involved in community action and research, this enthusiasm wanes. A similar phenomenon is apparent at the faculty level where one often observes a great desire to teach and write about social change, but only a limited desire to test change models empirically in the naturalistic context of the community. Over the past three years what we have evolved is an essentially behavioral criterion. It is related to the simple notion that the best predictor of what a person will do in the future is what he has done in the past. Many of our more successful students are those individuals who have worked in community service and research in the past. This has meant an under-representation of the academic stars who are likely over-represented in other graduate programs. It has also resulted in a graduate student population that is to be married, older, is more likely and has more blacks, than graduate populations in other program areas.

A second problem which we have had to confront with our training program is the very real difficulty of providing a base from which graduate students and faculty may operate. In other words, if a research in model-building is planned, operationally this means that some agreements must be worked out with those institutions normally involved in the delivery of the service under scrutiny. It also means that financial support must be obtained from the affected institution, or supplemented by grants and outside finances.
From a sociological point of view, what we are talking about is the problem of maintaining linkages with community agencies, institutions, and organizations. It has been quite difficult as of this point to fulfill this need, and the difficulty is related to operating from an academic institution. What would actually be needed would be a full-time liaison person to maintain political fences, intra-organizational agreements, and an ongoing communication between our program and the community. However, since such a role does not fall under the normal rubric of an assistant professor this is difficult to fulfill on an ongoing basis. Therefore, the faculty members to some extent, and the students to a larger extent, have had to fulfill this linkage-building role on an intermittent basis. Once again, an ongoing linkage or politicizing role would be much more preferrable to the system which we have developed in an ad hoc manner.

Another difficulty relates to the research and training role which has just been described. The fact that we are trying to build in both a research and an action modality means that at all times we are subject to a set of conflicting role demands. The natural inclination is to resolve this role conflict by making a choice. Thus, we find ourselves both as students and faculty tending to either opt for the research role, or the action role. We must make very intentional efforts to maintain both aspects of the total professional role. Once again, the incentive structure of the university often makes this difficult. For example, since normal salary promotion and tenure considerations are based on publications and classroom teaching performance, many of these demands are incompatible with the role that faculty must play within the context of this training program. Specifically, a model-building or implementation research often is of a longitudinal nature. This means that it is extremely difficult to have publishable results before two to three years. Clearly this type of publishing
Another difficulty is related to the social role in which we are trying to train graduate students. As clearly implied, this social role makes demands of students concerning their professional responsibility and maturity. We are asking of students, as part of their training program, to often function in such a way, and at such a level, that mature and fully accredited Ph.D. psychologists are asked to function. In other words, they need to deal with high public officials, hussle grants, write proposals, run service programs, be responsible for the fate of the people in their service programs, and assume the responsibility of actually effecting some change in their community. The difficulty lies in the fact that this social role is incompatible with many of the traditional norms of graduate training. It would be virtually impossible to develop this behavior among our students if we also asked them to assume a one-down power position vis-a-vis faculty. In other words, graduate students cannot be directed; they must be worked with as near-colleagues in a very real sense. What we have developed in our training program is a significant role for graduate students in all decision-making aspects. While not yet identical to a one-man, one-vote system, our intention is in that direction. Thus, we have had to engage in a bit of organizational and social change within our own academic setting, in order to be able to mount a training program oriented towards social change.

Some final comments are in order about the general viability of the university as a base for change. Although it is apparent we have had some successes in our own location, we would not like to generalize about the viability of the university as a base for action research. The principle reason is that universities don't really want to do this kind of thing. Universities are still basically institutions of teaching and scholarly endeavors. They are not centers for change. We would argue that there is
a bit too much stackism in the university. For those not in the know, stackism is contacted by excessive ruminations among the books, pamphlets, and publications of an essentially verbal and non-action world. The university is still basically an arena for intellectual fencing in the battleground of great ideas. We would argue for alterations in the structural and normative support for these activities, so that the ongoing social problems of survival could be addressed.