This workshop followed the structure described in the proposal -- a round-robin, where participants circulated among various stations for allotted periods of time. This was noticeably an _unfortunate_ structure. While the participants were engaged, interested and gave positive comments about the individual "stations," they did not like the structure. During one of the "computer-mediated written conversations," in fact, one group of participants at one station wrote to another group that they had to stop "chatting" because "big brother" imposed a time constraint. We decided to change the structure for the next workshops. However, before describing those, let us provide this small piece of data. It is taken from a computer file into which the real-time computer mediated written conversation was saved. It illustrates several things: that the adults, by the end of the workshop, were learning new things (evidence the mistakes), having a sense of humor, and developing inter-institutional, intra-community ties:

Station A: hello are you still there?

ga [meaning the other participant can now "go ahead"]

Station B: yesga

ga

Station A: What can we gain from this experience

this morning?

gqa

Station B: we can find out how little we know

aboutcomputer communication,

ga

*Station A: I agree. We need more practice so we

don't lose the kids!

ga

*Station B: are you from the library or the school

.we need to lose a few of our kids to

you

ga

*Station A: Please clarify

ga

Station B: have you seen the waves today the report

is that we are supposed to get some big

swells in the next day or two as a

matter aof fact i think i will go to the

beach after this session to see for

myself

ga

Station A: how fortunate! some of us have to go

back to work!

ga

Station B: no ypu dont you can do any thing t you

wsnt to do don't blame an outdated

concept such as work for your decisions

ga

Station A: Ha but man can not live on philosophy

alone.

ga

Station B: your are right.but poptarts can help

ga

Station A: o.k. lets go to the beach. you spring

        for ther poþo tsarts poptarts. big

        brother wants us to gather in the

        library now.

Note especially the asterisked exchange: Some institutions worry about "losing" the children, others, like the old woman in the shoe, have too many! But touchy issues like this get put down almost as soon as they are brought up. We hope that more of a history of inter-institutional contact may support a more developed exchange along these lines.

Meanwhile, we decided that the University should not be left out of the developing comradery. Two innovations were introduced for the succeeding workshops. One we had planned from the beginning and the community people expected, the other was drawn from our prior experience in arranging comfortable contexts.

The first was a planned change in the participant structure. The undergraduates in the first workshop were not especially assigned from their classes to work with this project; they were simply young adults, adept at the word-processing and telecommunications programs, who helped at the various stations. Following the Christmas break UCSD students were introduced into the project as a regular part of their undergraduate curriculum in either the Psychology or Communication departments through regularly taught classes (a practicum in child development in the case of Psychology, a course on computer networking in the case of Communication). Students were instructed in the materials that would make up the content of the second and third seminar/workshop. They helped to design the materials and to consider the

"scripts" that would allow the adults to have hands-on experience as "players" while at the same time have an occasion to reflect on how the materials might be useful in the various institutions. They saw their role not merely as "assistants to the software" but as "assistants to the developing plans of the community institutions." They were to learn <u>with</u> the community people what kind of future activities might work in the club, the center and the library. The outcome was positive: the university, clearly seen to be learning and curious in the persons of these young people, became a more approachable entity, engaged in the developing comradery and jokes. The older staff could "fit in" to this structure that presented the university as a more varied and human entity.

The second change is not depicted in the proposal: We simply had to change from the round-robin structure to one which gave more control to the participants while still insuring that they would engage in a wide-enough set of experiences so that they could "grow" goals for Phase 2. In the second and third workshops, we used a structuring device called "The Fifth Dimension" (one of the metaphors introduced in seminar/workshop number 1) which we have found to be an especially flexible and powerful means of organizing educational activity in a wide variety of institutional settings. Details of the operation of The Fifth Dimension are not relevant to this narrative (further information on the specific activities which can be included in the Fifth Dimension is contained in the initial proposal), but its general characteristics give some of the flavor of the way that organizing metaphors connect to actual activities.

Suppose that the goal of the adults is to keep children amused at a day care center and to increase their academic skills. The ensuing activities should be a mixture of fun, games, and "educational enhancement." By introducing The Fifth Dimension, these goals are brought together in a single metaphor. The device provides a motivation for "moving on" to a different activity, even before enough is known about the different activity in itself to account for the motivation.

The Fifth Dimension is a quasi-fantasy environment embodied in a set of rules, a cardboard box divided into approximately 20 "rooms", about as many different activities as "rooms." With some guidance from more expert helpers, about 20 individuals can engage in "journeys" through the Fifth Dimension, each having some choice about the activities undertaken, the time to be spent on each, and the level of effort to be given to each. The names of the rooms and "rumors" among the group of travelers give some idea of what the choice entails, but there is no need to have a full understanding of the task to be motivated to undertake it -- sometimes, one might engage in a geometry game "merely" to get to the "room" that has a history simulation, but while one is in the geometry game one might find it growing from a "have to do" to a "not so bad" to a "when do I get to do this again?" The rules and props deliberately mix fantasy and real problem solving. Many of the rooms involve telecommunications as a part of the task that must be accomplished to continue the journey through the Fifth Dimension. Many of the electronic messages come from or go to a Wizard who controls the entire activity; some messages though are between players in the Fifth Dimension or between a player and some "outside expert" who has agreed to participate in the long-distance electronic mail system.

We decided to use this instead of a round-robin structure for the second and third seminars. The community adults actually played it on two levels: First, they themselves were taking a journey through the fifth dimension but on a second level they were considering which of its features would or would not be compatible with Phase 2 activities in their local institutions. The fifth dimension was a big hit, and two of the sites are planning to appropriate it for their Phase 2 activity systems.

The second workshop was devoted to a wide-ranging demonstration of many different kinds of educational software, chosen to sample as broadly across domains and age-categories as possible so that personnel from each site could decide for themselves what kinds of activities they thought suited their own setting. Only software that was obviously designed for recognizable educational domains was used in this workshop. Some of the "rooms" in the Fifth Dimension were "closed due to construction" and the adults then built up some expectations about what the contents of the third workshop would be. Additionally, some "rooms" were arranged to demonstrate how small group activities could be interwoven into the Fifth Dimension organization. We arranged for four different small group reading comprehension approaches to be available as "rooms" that could be journeyed through. Clearly, the chances of a "group" landing in a room at the same time could not be relied on; these "rooms" were considered "lost in the fourth dimension" and the traveler had to wait to do them until they "arrived" at some time, whereupon the players who had encountered the room or planned to do so interrupted their on-going room activity and joined the small group at a special table. In the seminar we concentrated on innovative and enjoyable approaches to problem-solving reading comprehen-

sion, but we also emphasized that this structuring of "temporally appearing rooms" could be used for other special activities, like field trips, or beach clean-up work parties, etc.

The third seminar, as planned, focused on computer applications to the world outside the immediate setting. A variety of local contacts were made to help local sites gain information about the ways that computer are being used in business and research around   San Diego. The rooms that had been "under construction" in the second seminar were now open, and the community people could fill in the steps in their journey that they hadn't been able to take earlier. The activities here ranged from using the AP-UP1 service on the SOURCE computer utility to demonstrating the ways that arcade-like games and music editors could be used for assisting children in their school-related development. Also included were special activities that used adult computer tools such as data bases, spreadsheets, and simulations in ways that young children could participate.

Changes in the UCSD Structure

While these activities were going on in the community, we have been busy getting the UCSD structure together in a way that we hope will institute this kind of involvement for the long run. A new layer of classes has been instituted in the Communication Department to provide continuity of student participation and graduate students have been brought into the process to provide direct connections between teaching and research by people who might be expected to foment such activities in the future. As already indicated, an especially user friendly mail system was constructed which is available for future work.

Looking Ahead

On balance all these activities seemed to go well. We believe that we have accomplished our major goal of getting the researchers and local site personnel to know each other and to move the process of goal formation to the point where we are ready to start Phase 2 this fall. It has not been an easy process, nor will the goal formation cease simply because we enter the "experimental phase" of the project! However, we have set ourselves a deadline of September 1 for bringing Phase 1 to and end. During the last week of August I will be "debriefing" local site personnel about their view of the past year and eliciting from them their plan for next year. We expect that the scheduling of the opening days of Phase 2 will be less of a problem than that brought up by Phase 1; but still we expect that the concrete arrangements will give us new understanding about what our community institutions understood about Phase 1.

Phase 2 begins in earnest the last week of September. At that time Cole begins again to teach the UCSD courses which will provide the University-Community linkup as well as "older sibling/teacher aide" personnel for local sites. During the early weeks of September we will be busy gathering data on the individual child participants, helping the sites get their planned activity settings together, setting up computer accounts, and so on. It promises to be a very busy, and very enjoyable, year of research.