

is in your hands. I would like only to point to some of the dangerous assumptions contained in the model; none is totally wrong, but all are partly or mostly wrong, and in combination they seriously undermine, in my view, the usefulness of this mode of conceiving of educational reform. I would question the following assumptions:

- (1) A great deal is known about education, in particular as result of the research supported by the Cooperative Research Program.
- (2) It is possible to specify in advance the useful end products of research.
- (3) Most, if not all, good ideas for innovation in education stem from the research, or perhaps the development, community.
- (4) It is generally possible to document clearly the superiority of new or innovative practices to old or traditional practices.
- (5) School people have neither personal investment in, nor good reasons for, whatever they are currently doing.
- (6) School people are in general reprehensible because they do not value change for the sake of change, and research and development people are irresponsible for not trying as actively as they might to promote change.
- (7) The dissemination of new practices from demonstration school A to real school B is a simple process, about which we know a good deal.

Not all of these assumptions can be observed in the very brief summary of the pipeline model which I have provided, and I apologize for this. I believe that they can be found in Gideonse's article, and I would be willing to discuss these problems further if the Committee wishes.

Let me turn to the R. & D. Center with which I am specifically connected. In listing some of the research and development projects of which Harvard is particularly proud, I deliberately chose a preponderance of R. & D. Center activities and will not list them again. In addition to the research and development accomplished, or in process, there has been a second achievement of the Center which neither Harvard nor USOE, I think, fully predicted when we were established. This is the very valuable training which part-time employment in the Center provides. The Center does not offer scholarships or fellowships; but we do employ our own and other universities' students to carry out activities which are deliberately made as "educational" as possible. Through this route, we have already supplied ourselves with number of well-trained junior faculty and made similar contributions to other universities.

Another partially unanticipated accomplishment, in which the members of this Committee may be particularly interested, are the bridges to the schools of Boston and Cambridge which the existence of our Center has enabled us to build. These two large and proud urban school systems have for many decades been remote from the thinking and activities of Harvard faculty members. During the past two and one-half years, because of the opportunities for dialogue and mutual confrontation which Center resources have assured us, an exciting romance has budded and begun to blossom, we think. We have found when we discuss educational problems calmly and privately with our colleagues in Boston and Cambridge, that we can agree on possible solutions, some quite radical and far-reaching. I cannot list for you very many public examples of the fruits of this dialog, as we are still engaged in sniffing each other out; but I promise that if you return, two or three years hence, we will be able to present a surprising panorama of joint meaningful activities which go directly to the "guts" of urban educational problems.

There have been some problems with the operation of the Center, with respect to its relationship to USOE, of course. On the policy level, we sense the approaching focus upon us of the "pipeline" model, and of the systems analysis way of thinking, which threatens to vitiate the programmatic type of support which we thought, originally, the U.S. Office of Education intended to offer under its R. & D. Center Program, and in which we believe most firmly. We sense pressures, for example, to specify in advance what the products of our research will be. We feel "encouragement" to set up a particular organizational framework for the Center which seems appropriate to achieving the "results" (which we have not necessarily agreed we wish to produce). I shall not push this line of thinking too far, because we may be worrying unnecessarily and inappropriately about Washington's intentions. The *major* point is that we find it extremely difficult to reach and to talk to USOE officials about these matters, in a thoughtful atmosphere conducive to increased mutual understanding. For