

MEMORANDUM

UNITED STATES DEPARTMENT OF EDUCATION
WASHINGTON, D.C. 20202

MAR 18 1982

TO : The Secretary
Through: U _____
ES _____
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FROM : Assistant Secretary, OERI *James J. Jensen*

SUBJECT: International Study of Educational Technology -- ACTION MEMORANDUM

ISSUE

The United States National Commission for UNESCO (part of the U.S. Department of State) is interested in having the United States take the lead role in an international study of educational technology. The Commission wishes the Department of Education to work with it and provide the substantive expertise for this effort. If we proceed, our proposal to obtain that role will have to be made at a UNESCO meeting of experts to be held in Vienna, Austria, March 31 -- April 2, 1982.

BACKGROUND

There is strong interest in the European Region (which includes the United States, Canada, and Israel) of UNESCO to conduct a series of joint studies in the field of education. This was stressed at meetings of the Secretaries General of the European Region (Krems, 1979), Ministers of Education (Sophia, 1980), and National Commissions of the European Region (Madrid, 1981). As a result, a preparatory working group of representatives of various UNESCO National Commissions was established to develop a series of topics for joint studies. One topic that has been strongly suggested deals with applications of technology to education. Other topics proposed include educational and employment policies, community group participation in educational planning, non-formal education, teaching ethical and humanistic values, and the democratization of education.

Numerous countries, including Canada, Federal Republic of Germany, France, USSR, Belgium, and others, have expressed interest in a study of educational technology. This topic also is of strong interest to the United States National Commission for UNESCO, as well as our Department.

The U.S. National Commission has invited our Department to join with it in proposing that the United States participate in and take the lead role in the study on educational technology. If the proposal is accepted, the Department would be primarily responsible for the conduct of the study.

Attached for your information is a draft prospectus for the study as it is envisioned by one of our staff members, Lawrence P. Grayson, at this time. Although this is tentative, and will have to be negotiated with the

countries that participate in the activity, the draft will give you an idea about the scope and results of the study.

BENEFITS TO THE DEPARTMENT

This study is directly in line with our interest in educational technology, and is a natural adjunct to the various activities we already have underway in this area. A leadership role in the study would allow the Department to gain international visibility for its efforts, and would allow us to both contribute and gain information about developments in this field worldwide. The latter point is particularly important since several countries are making major investments in educational technology (the French government, for instance, has decided to purchase 10,000 microcomputers for use in its schools), but there is very little information in the American literature about their activities. This is an opportunity to learn much more about what these countries are doing, why they are doing it, and what problems and successes they have had. This can be valuable information as decisions are made in the United States about future investments and policies regarding technology in education.

DEPARTMENT COMMITMENT

If the United States obtains the lead role in this study -- it is believed that France also would like to have that role -- we will be responsible for the direction of the study and for the drafting of the report that results. International cooperative studies of this nature often take several years to complete, and it is expected that this one will take three years to finish. There will, however, be major documents completed each year. Our commitment during this period will be primarily in personnel and not in funds. The Department will provide the person to direct the study, which is about a half-time assignment, and secretarial support. The U.S. National Commission for UNESCO will include in its budget funds for the study director to travel to one or two meetings each year. In addition, during the course of the study, the Department might wish to have certain staff members prepare background papers on specific topics.

Although no commitment must be made at this time, it would be helpful to have a small budget to commission selected papers from people outside of the United States Government and to draw together panels of experts from time-to-time to help shape the United States' contribution. While this is not essential to the leadership role, it would assure a wider variety of viewpoints and ideas on the state and direction of educational technology in this country. If funds are approved for a technology initiative within the Department, a small amount might be budgeted each year from those funds for these activities.

The publication of the final report of the study will be handled by UNESCO Headquarters in Paris. UNESCO may translate the report into several languages and make it available worldwide. In addition, if near the conclusion of the study the Department believes it is of value to us, we can publish and distribute the report in the United States.

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This activity has been discussed with Edward Curran. If the U.S. obtains the leadership role, he is willing to release Lawrence Grayson of his staff to OERI for a half-time assignment to direct the study during its three-year duration.

Dr. Grayson is a very appropriate choice for this assignment. He is renowned as an expert in the field of educational technology, having published extensively in the field, including an invited chapter for the forthcoming edition of the Encyclopedia of Educational Research. He has been with the Department and its predecessor for over twelve years, and has served as director of the Division of Educational Technology in the U.S. Office of Education and as director of the Technological Applications Division in NIE, and received the HEW Distinguished Service Award for his work in educational satellites. He also has been active with UNESCO for the past ten years and with the United States National Commission for UNESCO.

IMMEDIATE ACTION

In order to begin the activity for this study, Dr. Grayson should attend the UNESCO meeting of experts at which decisions will be made about the scopes of the studies to be undertaken and the countries that will have the lead roles. This meeting will take place in Vienna, Austria, March 31 -- April 2, 1982. The U.S. National Commission has indicated that it will provide the funds to cover his expenses in Austria, and has asked that the Department of Education provide the funds for his travel to this meeting. All future travel costs will be provided by the U.S. National Commission.

Although this can be a very beneficial activity that can gain the Department a good deal of visibility and information in its technology initiative, at the moment, neither NIE nor OERI has the \$1,100 necessary to support his travel to the meeting.

It is requested that the necessary travel money be allocated from the Secretary's discretionary funds.

Donald J. Senese

Approved: _____
Secretary

Date

Disapproved: _____
Secretary

Date

cc. E. A. Curran

(NOTE: Final copy will be typed on the letterhead of
the United States National Commission for UNESCO.)

DRAFT

UNESCO JOINT STUDY OF EDUCATIONAL TECHNOLOGY

DISCUSSION

Throughout most of the history of civilized man, technology has been linked to learning. Generations of students have been taught using first clay tablets and papyrus, later paper-pen-and-ink, the hornbook, chalkboards, books and pictures, and more recently films, records and transparency projectors. In today's world, many learners are receiving instructions by radio, television, electronic sound and visuals stored on tape, the telephone, computer and communications satellite. Further, the growing availability of videodiscs, microcomputers, computer graphics and electronic terminals with a high degree of "intelligence", fiber optics, lasers, communications satellites that operate into low-cost terminals, and a large number of devices that function with telephone lines is stimulating the creation of new approaches to learning and providing opportunities to implement applications that were unfeasible, either technically or economically, even in the recent past.

Several countries are exploring and developing the most modern technologies for use in education. Canada and the United States, for example, are using communications satellites to deliver education to people in the very rural parts of those nations. France is making a major commitment to utilize microcomputers in its schools. England has made substantial investments in development videotext, a technology that can be utilized for education in non-school settings. The Federal Republic of Germany and the United States are marketing interactive videodiscs, which can be used effectively in a wide variety of educational and training tasks. Unfortunately, very little is known about these and other similar technological developments outside of the country in which the work is being done. Even less is known about how these countries are applying the technologies in their own educational systems, about the successes and problems they have had, how they are and have gone about overcoming their difficulties, and what are their future plans.

A joint study on computer and communications technologies and their applications in education would be of significant benefit and interest to numerous policy makers, educators, researchers and developers in many countries.

PROPOSAL

The United States National Commission for UNESCO, in cooperation with the U.S. Department of Education, proposes to the National Commissions assembled that the United States is willing to take the coordinating role in a joint study of educational technology.

The study envisioned would be composed of three parts. The first part would be a state-of-the-art review of how technology is currently being used in education in the various participating countries. The review would include education at all levels, in traditional and non-traditional approaches, from pre-school through professional and adult education. The second part would treat the problems of applying technology to education in school and non-school settings. Consideration would be given to the organizational, financial and social considerations, and would consider questions of levels of decision making, teacher training, formal and non-formal educational settings, production and availability of high-quality course materials, changes in teachers' roles, evaluations of effectiveness, and potential impacts on schools and society. The third part of the study would be an extensive bibliography of literature on educational technology in the participating countries, and would identify those journals, organizations and other sources from which additional information can be obtained in the future.

The United States participants would provide the needed technical expertise and staff support to serve as coordinator, and would act on behalf of the participating countries to schedule meetings of the group, develop agendas for and chair the meetings, develop an outline for the study and for the final report that can be circulated to the participants, and prepare the intermediate and final reports based on the materials prepared by the participants. Each of the participating National Commissions would identify a person from its country who would have the primary responsibility for

developing the materials pertaining to that country, and would provide the funds necessary for the expenses and travel of the participant to the periodic meetings of the working group.

SCHEDULE

It is expected that the study will take 36 months to complete. The initial proposed schedule is:

- Month 1: Participating National Commissions identify persons who will participate in the study.
- Month 2: The Coordinator sends out a preliminary agenda and other information for the first meeting of the Group.
- Month 3: The Group meets for the first time to decide on the general work to be done and the procedures to be used; scope of work for Phase 1 (state-of-the-art reviews) begins.
- Month 9: Participants submit drafts of papers for Phase 1 to Coordinator.
- Month 12: Coordinator sends draft of Phase 1 report to Group.
- Month 13: Group meets to critique Phase 1 report and to develop scope of work for Phase 2.
- Month 19: Participants submit drafts of papers for Phase 2 to Coordinator.
- Month 22: Coordinator sends draft of Phase 2 and revision of Phase 1 reports to Group.
- Month 23: Group meets to critique Phase 1 and Phase 2 reports and to develop scope of work for Phase 3.
- Month 27: Participants send drafts of papers for Phase 3 to Coordinator.
- Month 30: Coordinator sends draft of final report to Group.
- Month 33: Participants meet to critique final report.
- Month 36: Coordinator revises final report and sends it to UNESCO Secretariat for publication.

MEETINGS

The participants will meet as a group on four occasions. Each meeting will be held in a different participating country, and will include discussions and demonstrations of some ways that technology is being applied to education in the host country.

The United States National Commission for UNESCO is prepared to host the first meeting of the group on the campus of the University of South Carolina. Among other possible activities, participants will be able to tour the facilities of a major state educational television network, see a satellite communications link and learn how it is being used for education, hear about an innovative arrangement of how 21 universities have combined to produce and distribute graduate-level courses using videotape to thousands of engineers at industrial sites all over the United States, as well learn about some of the latest activities being done with computers and videodiscs.

PROPOSED COORDINATOR

The person proposed as Coordinator for the study is Dr. Lawrence P. Grayson. Dr. Grayson is highly and uniquely qualified for this position. He has a Ph.D. in electrical engineering, has worked since the early 1960's on applying technology to education, is experienced in developing or managing activities in educational uses of communications satellites, computers, film, television and radio, and has published extensively in the field. He has been active in UNESCO affairs for 10 years, and serves as chairman of a UNESCO international working group on curriculum design, served as as advisor to the Director General on technological research and higher education, authored a UNESCO-published study, and serves as chairman of the Education Committee and member of the Executive Committee of the United States National Commission for UNESCO.

DRAFT #1
Prepared by L. P. Grayson
February 25, 1982