DOCUMENT RESUME

ED 245 646   HE 017 413

AUTHOR   Shann, Mary H.
TITLE   Institution Building through International Faculty
                Exchange.
PUB DATE   Apr 84
NOTE   19p.; Paper presented at the Annual Meeting of the
                American Educational Research Association (68th, New
                Orleans, LA, April 23-27, 1984).
PUB TYPE   Reports - Descriptive (141) -- Speeches/Conference
                Papers (150)

EDRS PRICE   MF01/PC01 Plus Postage.
DESCRIPTORS   *College Faculty; Curriculum Development; Educational
                Change; Evaluation Methods; Fellowships; Foreign
                Countries; Higher Education; *Instructional
                Development; International Educational Exchange;
                *Postdoctoral Education; *Teacher Exchange Programs;
                Teaching Methods; *Technical Assistance
IDENTIFIERS   *Boston University MA; *Cairo University (Egypt)

ABSTRACT
                The experience of Boston University's school of
education in providing development assistance through collaborative
faculty linkages to Cairo University, Egypt is discussed. The
assistance has taken three forms: (1) short-term, postdoctoral
fellowships at Boston University for 13 Cairo University faculty in
the areas of program planning, teaching methodology, educational
technology, and evaluation; (2) long-term fellowships in degree
programs in educational leadership for five Cairo University faculty
members who will assume major roles in curriculum and faculty
development; and (3) on-site guidance and collaboration at Cairo
University by Boston University faculty members in the areas of
program design, implementation, evaluation, and institutionalization
of inservice faculty development programs. Program monitoring is
discussed with attention to participant selection, orientation,
curriculum for the summer fellowship programs, and satisfaction with
the summer programs. Attention is also directed to efforts at
implementing new teaching strategies, curriculum change activities,
and approaches to improve evaluation practices. The following issues
affecting educational reforms are also addressed: incentives,
infrastructure, leadership, and financial commitment. (Author/SW)

INSTITUTION BUILDING THROUGH INTERNATIONAL FACULTY EXCHANGE

Mary H. Shann

Boston University

Paper presented at the American Educational Research Association Annual

Meeting, New Orleans, April, 1984.

2

ABSTRACT

INSTITUTION BUILDING TRHOUGH INTERNATIONAL FACULTY EXCHANGE

Mary H. Shann

Boston University

This paper seeks to describe and analyze the experience of the school of
education of a large, urban, American university in providing development
assistance through collaborative faculty linkages to the largest university in
the Middle East. The assistance has taken three forms: (1) short-term,
post-doctoral fellowships at Boston University for two groups of 13 of Cairo
University faculty in the areas of program planning, teaching methodology,
educational technology, and evaluation; (2) long-term fellowships in degree
programs in educational leadership for five faculty members who will assume
major roles in curriculum and faculty development upon their return to Cairo
University; and (3) on-site guidance and collaboration at Cairo University by
Boston University faculty members in the areas of program design,
implementation, evaluation, and institutionalization of in-service faculty
development programs.

Site visits, interviews, participant observation, project documentation,
unobtrusive measures, and reports of critical indicences are used to evaluate
this faculty development program which is part of a larger institutional
development project. This paper provides an interim report on the project and
identifies the conditions anticipated to be necessary for long term impact.

INSTITUTION BUILDING TRHOUGH INTERNATIONAL FACULTY EXCHANGE

Mary H. Shann

Boston University

Fundamental to the process of development is the increased ability of a society to shape its physical, social, cultural and economic environment. Countries must develop their abilities to introduce and sustain changes that lead to improvements in productivity and higher standards of living for large numbers of their population. Universities are among those institutions of a society which can be engines for development. This is particularly so for mature universities which have expanded operational roles in the planning, program development, project management, and evaluation of activities directed to specific development goals. Of the less developed countries which have achieved middle-income levels, there is relatively less need for infrastructural support and greater need for human resource and management development. And, rather than unilateral aid, the assistance they need takes the form of collaborative. relationships and institutional linkages. American universities can play a significant and rewarding role in this mode of development assistance, if they have the commitment and resources to do so.

Objectives

This paper seeks to describe and analyze the experience of the school of education of a large, urban, American university in providing development assistance through collaborative faculty linkages to the largest university in the Middle East. The objectives are three fold: to describe the context and process of program planning and implementation of the faculty development project with attention to the resources and commitments required; to provide an interim report on the successes and shortcomings of the project for both universities; and to identify the conditions anticipated to be necessary for long term impact.

Perspectives

Increasingly agencies supporting international development have turned their attention from "hardware" to "software". (World Bank, 1980, p. 82.) In the education sector, this means lending programs which no longer focus only on infrastructural needs, such as constructing school buildings but also include support for admininstrative capacity building, teacher training, curriculum development, and the acquisition/production/distribution of instructional materials. World Bank lending for education and training over the past two decades typifies this shift, as support for education projects rose over 100 fold from $9 million in 1963 to $900 million in 1982. (Psacharopoulos, 1983).

It has been repeatedly documented that investment in education is one of the most effective means of contributing to a country's development effort (e.g. Arriagada, 1983; Birdsall, 1982; Heynemann, Jamison, &Montenegro, 1983; Rizzuto & Wachtel, 1982) as measured by a broad range of indicators including life expectancy, nutritional status, literacy, and adult earnings. But higher education, the top of the learning ladder, is often at the bottom of the list when priorities for educational spending are considered (Psacharapoulos, 1982). Moreover, the trend has been toward decline in support for higher education (World Bank, 1974). As Psacharopoulos points out, "The most common prescription for economic development is injections of basic, and especially vocational, education; Indeed, it is difficult to rationalize expenditure on another university when a high proportion of the country's population is illiterate and a considerable number of university graduates are unemployed."

However the socioeconomic rationale for reducing expenditure on higher education in developing countries is contrary to more recent analysis supporting favorable rates of economic returns to nonvocational higher education (Psacharopoulos, 1980, 1982). The real benefits may indeed be greater if the role of the university, in responding to social needs for national development is also taken into account (Soedjatpnoko, 1977). Universities which have progressed to the stage of maturity as characterized by Bowles (1977) take on a role central to the support of national development.

Context

Cairo University has become a major resource for national and regional development in Egypt and throughout the Middle East. Its curriculum and academic policies in many cases provide the model for academic program at the newer government universities in Egypt. Cairo University is keenly aware of the need for educational reform and its responsiblilty to exert leadership in correcting some of the problems which have resulted from overenrollments, decline in academic standards, and the production of graduates without regard to the manpower needs of the country. Some historical context is provided to describe the nature and extent of the problems.

In December, 1983, Cairo University celebrated it's 75th jubil   unded in 1908 as a small private, liberal arts school, it   me a public institution in 1925, incorporating existing medical   and arts faculties and a new science school. By the 1940's, its 10 schools enroll about 10,000 students. The 1952 Revolution in Egypt brought to power a group interested in promoting social mobility and nationism through education. Immediate and far-reaching reforms included new, unified, compulsory, free primary education for all. The changes extended to higher education as well. Other government universities followed the establishment of Cairo University, with enrollments growing gradually at first, and then at a rapid pace to accommodate the government's new

policies for equalizing opportunities and opening higher education to talent outside of the priviledged classes. By 1957, about one-third of those who finished secondary education went on to higher education; by 1967, the figure rose to two-thirds. Today more than 160 institutions of higher learning admit over 100,000 students a year.

The popular desire for social mobility through education has resulted in considerable sacrifice in academic standards and a chronic overabundance of degree holders. Increasingly, the graduates of more recent years have not been prepared with skills in demand in the economy. From a manpower standpoint, a disproportionate number studied liberal arts, commerce, and law. While the government's avowed policy is to offer employment to all graduates, the enormous bureaucracy cannot absorb these aspirants to white collar jobs in productive, meaningful employment. Even those prepared in scientific areas lacked practical knowledge at levels required by industry.

The universities now enroll about four or five times the capacities they were designed to accommodate. Severe overcrowding has served to perpetuate certain aspects of their traditional education system rooted in British and Islamic origins; the emphasis on rote learning and passing examinations has continued to the detriment of original thought and analysis. In addition, the large numbers have limited the possibilities for providing and supervising important experiences for students in laboratories, clinics and field settings.

The university admissions policies have also had a pervasive impact on the distribution of talent across and within the system of higher education in Egypt. To open the universities to talent rather than to privilege, the Egyptian government instituted an examination system. Those with the highest scores choose the more prestigious faculties at the more prestigious universities, with little regard for personal fit professional field. Generally medicine, science, and engineering are the top choices, and the relative status of the government universities makes Cairo University a clear choice over the newer provisional institutions. One undesired effect of the admission policy is to foster pursuit of areas in which the students have little genuine career interest.

Cairo University now enrolls over 130,000 students. While it has prepared many of the faculties and provided models of curriculum and program development for the new government universities, it too has suffered from the decline in academic standards resulting from severe overcorwding throughout the university system.

This assessment is intended to provide a context for understanding the faculty development project initiated by Cairo University. The University attracts students and faculty who are among the best and the brightest, willing to commit considerable talent to improving academic policies and practices, but who are faced with systemic problems and economic difficulties which weigh against the success of their efforts.

The Project

World Bank/International Development Agency funds were loaned for the Cairo University--IDA Third Education Project to address the significant need for educational reform in higher education in Egypt. The project has two parts. The first part focuses on the construction, professional staffing, and management of a Health Science Resource Center at Cairo University. Ten years in the making, the new physical facility is intended to be a resource primarily to the faculty of medicine and to other health science schools for the improvement of instruction and continuing education in the health professions. The application of educational media and technology to clarify and enhance instruction in many health science areas but particularly in laboratory, clinical, and surgical practices is the focus of the Center. Training under this portion of the project has been directed by the Boston University School of Medicine Media Services Division.

The second part of the project is concerned with faculty development throughout all the faculties of Cairo University, including those in the health sciences, but also the basic sciences, social sciences, engineering, agriculture, and education. It focuses less on building an infrastructure and more on the development of human resources--faculty development--to bring about the desired educational reforms. The concern of this paper is the role of Boston University School of Education as a collaborator with Cairo University in faculty development for improved program planning, teaching and evaluation within selected faculties of Cairo University, and the benefits to both institutions.

The Boston University School of Education provides technical assistance to the administration and selected faculties of Cairo University for improving curriculum, instruction and evaluation. The assistance, offered in a collaborative colleagial mode, has taken three forms: (1) short-term, post-doctoral fellowships at Boston University for two groups of 13 of Cairo University faculty in the areas of program planning, teaching methodology, educational technology, and evaluation during Summer, 1982 and Summer, 1983; (2) long-term fellowships in degree programs in educational leadership for five faculty members who will assume major roles in curriculum and faculty development upon their return to Cairo University; and (3) on-site guidance and collaboration at Cairo University by Boston University faculty members in the areas of program design, implementation, evaluation, and institutionalization of in-service faculty development programs. Five site visits have been made, and a sixth is planned for November, 1984.

Evaluation Design

A two-group design for impact assessment (Rossi and Freeman, 1982) is being used to analyze the resources, conditions, and outcomes for each of the two groups of Cairo University faculty members participating in the summer fellowship programs. Modifications of the time series design are also being employed to guage the longer-term impact of the project. The evaluator subscrines to the value of comprehensive and eclectic methods for determining the impact of the project.

The following data are being collected to describe and analyze the project from a variety of perspectives: (1) questionnaires and interviews with participants, regarding selection, motivation, satisfaction with the project, understanding of project goals, and progress toward attaining project goals; (2) observations of participant training and project operation; (3) interviews with relevant administrators and others whose interest and support might affect the project; (4) documentation of critical incidents marking progress of the project; and (5) administrative records and other project documentation.

PROGRAM MONITORING

Logistical Support

Considerable effort had to be devoted to prior planning, and lessons from the experience with the process are reported here so that they may be helpful for other universities contemplating similar programs. The time and expense required for preparation the nonacademic aspects of the fellowship training had been underestimated. Visas, medical insurance, travel arrangements, housing, stipends, and individual preferences of 30 established professionals, some traveling with families, had to be addressed by an understaffed office. Suitable apartments with kitchen facilities had to be secured because the group would be in residence in Boston during the Ramadan; the usual dining services offered by Boston University could not accommodate their needs.

Selection of Participants

Site visits to Cairo by Boston University faculty members during the first 18 months of the project were heavily devoted to interviewing large numbers of applicants for the summer fellowship slots. Participants were sought who: (a) were fluent in English and could benefit from an intenstive short-term program of instruction in English; (b) were experienced and perceptive enough in teaching their disciplines to be conversant with critical educational issues, yet junior enough to have the promise of many years of their professional lives ahead of them; and (c) indicated a commitment to working with their colleagues in solutions to their educational problems.

Each spring, in 1982 and 1983, a pool of finalists was identified by the Boston University faculty members after individual interviews with the candidates. Participants were named from these lists by officials at Cairo University who were concerned for the equitable distribution of these awards across the faculties of the universities. Considerable effort was made to identify appropriate candidates; still, some mistakes were made. It is possible that a few participants were not made sufficiently clear of the commitments which program participation was supposed to mean. These individuals did not return to their positions at

Cairo University upon completion of the fellowship. (Others decided later to accept temporary assignments abroad.)

Orientation

The selection of applicants, program planning and especially administrative and logistical preparations for the summer fellowship programs proved to be much more time consuming and problematic than originally envisioned by faculty and administrators at either institution. Less time remained during the site visits for reviewing specific plans and curriculum materials intended for the subsequent summer's program. Opportunities for the Boston University professors to visit typical classes at Cairo University and discuss current evaluation and grading practices were also limited in favor of careful selection of candidates.

Program descriptions, curriculum outlines, and prior reading materials were provided to the participants before they came to Boston. We also requested that they complete an extensive questionnaire beforehand. The questions were designed to promote prior analysis, orientation and articulation of the educational problems which fellowship participants were facing at Cairo University. For the second group, an orientation was to have been given by the "Boston Veterans" who preceded them the previous summer. Not all of these preparations were experienced by all of the participants as planned.

Curriculum for the Summer Fellowship Programs.

The 1982 summer fellowship program highlighted program development and the application of media and technology to instruction. During the first phase of the curriculum, the fellows were introduced to the methods of studying organizations, of assessing needs within organizations, and to methods of problem solving within organizations. Concurrently, they were introduced to educational technologies, to principles of design and features of learning environments, to the use of methods and media for instruction, and to the planning and sequencing of instruction.

During the second phase of the program the emphasis was on using problem-solving strategies for designing new curricula and media. Methods of evaluating the effectiveness of a program and of assessing student performance within a program were integrated with curricula design and media selection and use. The fellows began work on final projects which were directed toward specific problems in their respective faculties at Cairo University. Each project involved components of program development using appropriate technology. At the end of the program, fellows presented their completed projects to their colleagues, instructors, and others involved in the planning, technical assistance and administration of the overall program.

The curriculum for the summer, 1983 program had a different look. As a result of evaluations and specific requests from new participants and from the project director at Cairo University, the program planning and

technology components of the previous summer's program were abbreviated to enable more substantial attention to two other components: university teaching methodology and evaluation techniques.

The 1983 program had two phases. In the first phase, an abbreviated version of the previous summer's curriculum was taught. (Our intention was to integrate the four components more fully, but full-time contributions from four professors could not be supported by the budget, and other commitments made by the Boston University professors variously required travel away from the area.) The second phase highlighted models and skills of teaching at the college level, and methods of evaluation for curriculum, teaching, and learning.

Satisfaction with the Summer Programs

At this point in the project it is possible to report on the satisfaction of participants with their summer training programs and their positive assessments of the value of the experience for helping them to effect changes at Cairo University. However, the curriculum for the summer, 1983 program, while it offered a wider range of subject matter and skills, proved to be less satisfying than that of the previous summer.

In both years, the fellows arrived with a diverse and mixed agenda. Many stated that they wanted to learn the application of new media and technology to education. Some came specifically to learn about curriculum planning and development; some to use program planning as a means of faculty development within their departments and faculties. A few came with the specific agenda of studying what Boston University faculty members were doing in such fields as microbiology, electrical engineering, and veterinary medicine. Almost all said that they were seeking new teaching methods and new ways of evaluating student performance. These diverse aims and interests while potentially enriching and expanding of the overall experience, added to the difficulties of conceptualizing and delivering a program highly satisfying to all.

Each of the four Boston University professors expressed the desire for more instructional time with the Cairo University faculty members. Moreover, the diversity of the program's offerings did not appeal to all of the fellows. Many found various elements to be of limited interest or projected use to them. There was no pattern to their preference. A similar number found the educational technology segment as interesting as didn't; the same responses applied to sections on teaching methodologies and program development. The evaluation section was a happy exception; the fellows uniformly expressed high interest and need for what they learned in evaluation.

The Boston University faculty involved in teaching the programs uniformly noted the difficulties they encountered in working with a mix of junior and senior faculty who were eventually selected. In their opinion,

during the second summer session, the senior participants impeded the contributions of the junior persons. On the other hand, one of the senior persons from Cairo University, unaware of that assessment, expressed the view that the fellowships should not have been "wasted" on junior faculty who in his opinion were categorically not in positions to influence change. And contrary to the recollection of the Boston University faculty, there was slightly <u>greater</u> variability in the academic ranks of the <u>first</u> summer group. The real object of their commentary was more likely an elusive group cohesion which materialized for the first group but not for the second group.

Indeed, criticisms were voiced, but they should be placed in perspective. Despite diverse expectations from very demanding and accomplished professionals, the curricula for both summers' programs were seen to have accomplished most of their goals. In response to questionnaires for program evaluation, a majority of the fellows indicated that they had found the curriculum materials interesting and relevant to their work, and that their views on the possibilities and approaches to change at Cairo University were significantly enhanced.

Role of "Cultural Interpreter"

In the view of all those who have been familiar with the project, a highly significant contribution has been made by a senior professor who is able to understand, and be understood in, both cultures. Born and raised in Egypt, schooled in Cairo and the United States, he has spent 25 years of his professional life at Boston University. His familiarity with the social, economic, and cultural context of project participants and their respective institutions has been extremely helpful for promoting mutual understanding. The benefits of his insights have been noted in negotiating the agreement for the project, in designing a program responsive to the wishes of our Egyptian colleagues, and in capitalizing on the resources which both universities have to offer.

The personal skills of this senior advisor were especially noted in his contributions to the first summer program when he participated in most sessions and spent considerable time with the fellowship participants outside of formal classes. He was not able to contribute to the same extent to the summer 1983 program. The failure of the latter program to achieve the same heights of learning and good will as the summer 1982 program had been ascribed to the difficult diversity of age, rank, and interest supposedly represented in the 1983 group. More likely the difference can be ascribed to the cooperativeness, good humor, and eagerness to enjoy each other's company which our cultural interpreter promoted with skill and aplomb in the summer 1982 program.

PROGRAM IMPLEMENTATION

Application of New Methods and Implementation of Proposed Projects

A member of the Boston University team made a site visit in January, 1984 to investigate what progress had been made toward instituting the changes deemed necessary by the program participants and the leaders of Cairo University. An extensive interview schedule was developed and individual meetings were arranged over a period of eighteen days with each of the summer fellowship participants who was then in Cairo. (Seven of the 26 fellows were abroad for brief or long-term commitments.) At the request of several of these faculty members, additional meetings were arranged with some of their colleagues and/or deans to discuss what might be done to accomplish the desired educational reforms. In addition, several large group meetings were scheduled by project leaders and senior officials at Cairo University.

The interview schedule for fellowship participants inquired about changes in teaching practices and the application of educational technology to instruction, efforts at curriculum development, as well as changes which they may have been attempting in evaluation policies and practices. Respondents' perception of factors influencing their attempts at change were also addressed. The interview schedule was not followed with question-to-answer rigidity because several of the faculty members had their own agendas and concerns; some had even brought curriculum materials, tests, course evaluation forms, and other documents they wanted to discuss. Moreover, the interview topics in practice were interrelated. The schedule was used as a guide to review areas of concern which may have been missed.

All of the respondents were able to describe changes in educational practices which they were attempting in their own classes, and most indicated that the fellowship experience played an important role in motivating their efforts at change. Some of the changes they attempted were very ambitious, with the potential of affecting entire departments or faculties. Examples of new educational practices are grouped below under the headings of teaching methodology, curriculum development, and evaluation. Several examples of the application of educational technology were also given but each these are covered under one of the other three headings.

    A. Teaching Methodology

Efforts at implementing new teaching strategies tended to be limited to individual's own practices. Among the responses reported were:
        --incorporating slides into lectures to illustrate specimens and
            techniques more clearly to the students (who often have limited
            access to text-books or other illustrative materials);
        --modeling one's teaching after specific practices they admired
            in
            the Boston University professors;
        --waiting after questioning students to promote more thinking;

--changing pace;
--preparing and distributing outlines of a lecture and
  references to students so they could follow a lecture more
  closely;
--leading a discussion according to principles and practices
  learned in Boston ,
--using praise to promote more student response in what are
  typically very passive classes for students.

Two Cairo University professors were attempting to influence changes in
teaching practices on a wider scale. One member of the Faculty of
Medicine had begun to provide microteaching sessions for her junior
assistants. Another member of the Faculty of Dentistry was designing a
continuing education program for army dentists to be implemented during
the summer months; the program would incorporate many of the design
features and teaching strategies he experienced in Boston.

B. Curriculum:

Reports of efforts at curriculum changes ranged from development of
individual units within courses to the review of entire programs of
professional preparation. Almost all of the efforts involved
collaboration on the part of the Boston University fellowship
participants with other colleagues who had not been part of the Boston
program. The following examples are meant to illustrate the range of
attempts at curriculum development and change:
--A member of the Faculty of Agriculture is leading a group of
  his colleagues in efforts to develop more fully the core
  courses of the five year program, beginning with the first
  year offerings, using a mastery learning approach. For each
  course a package would be developed which includes a syllabus;
  objectives for each unit; suggested activities to simulate
  field visits; visual aids to instruction; practice exercises;
  and sample examination questions.
--A member of the Faculty of Engineering is working incorporating
  mastery learning and unit planning methods for a course he is
  co-teaching in biomedical engineering. Several other
  fellowship participants also displayed similar efforts to
  revising courses or parts of course they are presently
  responsible for teaching with departmental colleagues.
--Another member of the Faculty of Engineering related how the
  program planning and analysis techniques he learned in Boston
  encouraged him to review the problem that new graduates are
  unprepared to meet some of the demands of industry. In
  particular, he noted that skills in feasibility analysis were
  important to engineering consultants. He is introducing a
  unit on the topic in one of the fourth-year courses.
--Three fellowship participants from different professional
  fields (agriculture, engineering, and psychology) joined in
  planning and delivering in-service training for employees of a
  Public Information Center who give health and nutrition

13

classes to citizens. (However, since the Ministry of Information was unable to fund further development of the program, the faculty members discontinued these efforts.)

--A fellowship participant from the Faculty of Medicine translated a portion of the medical education curriculum for nursing students from English into Arabic and revised the curriculum in light of the the results of a pretest showing
* gaps in prior knowledge. She claimed that the experience in the fellowship program was a major factor in addressing the problem as she did.

--A member of the Faculty of Pharmacy reported that after last summer's workshop she tried to change an area of the curriculum in response to criticisms from industry regarding the level of skills of graduates. Her efforts with a colleague resulted in a new course which was tried and well received by students during the fall semester.

C. Evaluation

The portion of the summer fellowship program devoted to examination of issues and techniques for student, faculty, and program evaluation was very well received by the Cairo University fellowship participants. All of the fellows had expressed the need to improve evaluation practices in their faculties at Cairo University. Furthermore, all of the fellowship participants reported that they found the ideas and experiences from the summer workshop on evaluation practices very appealing and useful. A few junior professors in certain departments indicated that only chairman or senior professors wrote final exams. In the few cases where the fellowship participant felt he/she had no opportunity to evaluate properly what he/she had taught, the individual made no effort to change.

Regarding the application of new evaluation practices, some said that they intend to try the ideas, but it was "too early to tell." Many more cited specific practices they were already trying:

--developing checklists and rating scales for appraisals of clinical performance rather than using global evaluations
--using more frequent evaluations in order to give students feedback on how well they are doing in a course
--preparing examination questions with the course objectives and not simply the content in mind;
--indicating to students the time they should allocate to each question on an essay examination;
--using objective test items to evaluate student performance (in a department which had historically used only formal essay examinations).

All of the curriculum development efforts reported earlier included plans for developing test items and clinical assessments as part of the packages. Two of the fellowship participants had attempted course evaluations as well, both using questionnaires administered to students. The results were mixed. One reported that survey was the first

experience of its kind for the students. "They were astonished." The other participant reported gaining information from the students which she found "extremely useful" for improving her course in oral surgery. While students praised her for stimulating their contributions to class discussion, they noted that the pace of instruction on certain units was too rapid. The questionnaire also documented the students' need for more educational media, laboratory, and clinical experience to be able to understand certain skills and procedures. "I can't image the surgical procedure only from an oral description." This documentation made a compelling case for greater access to media services in her Faculty of Oral and Dental Medicine, and prompted her colleagues to examine the course sequence with the view toward organizing the content differently.

Factors Promoting Change

For all of the topics discussed in the interviews with fellowship participants, individuals were asked to identify factors or circumstances which may have promoted or impeded the success of their efforts. While each respondent had a unique set of experiences and situations to relate, there were several factors which emerged from the interviews--across individuals and across topics--that seem to be important for bringing about the desired educational reforms. The following factors appeared to accompany efforts at changes whose impact could be felt beyond the individual's own classes:

      --the individual's ability and motivation to initiate changes;
      --a supportive department chairperson;
      --a supportive dean;
      --access to colleagues from the Boston University program and/or
         another faculty development program with whom they could
         discuss their plans, projects, and progress;
      --some control over developing courses and preparing examinations

Not surprisingly, those fellowship participants who attempted to bring about changes in their own courses were more successful, sooner, than those who attempted to institute changes which involved whole departments or faculties. It is also important to note that those who attempted to develop curriculum more fully within the framework already approved for their faculties were able to act on their plans more readily.

For the government universities in Egypt, laws are enacted which establish the general curriculum of the faculty of a university. Faculties are expected to review their bylaws every five to seven years. The process of changing the content and emphases within the curriculum is slow and exacting. The Supreme Council of Universities which is their general governing board first discusses the recommendations for change, then sends the suggestions to a sector committee.

The sector committee is composed of deans from faculties of the same disciplines at all of the government universities; presidents of the relevant universities, heads of the national organizations which are the professional associations for the disciplines covered by the faculty;

representatives from the armed forces if the graduate professionals might be employed by the military; and retired professors.

The sector committee is obliged to report its recommendations to the Supreme Council. Finally the Chamber of Deputies paraphrases the recommendations in legal terms, and they are enacted into law. Thus any efforts at change which alter the curriculum components and relative emphases in a substantial way must be subject to this review process. Fellowship participants in the faculties of pharmacy and engineering were considering some "macro" level changes because the review process described above was being enacted for their faculties.

Institutionalization of Faculty Development and Educational Reform

Among the faculty of Cairo University, there appears to be a ground swell of recognition of the need for educational reforms. Fellowship participants reported that they and their university colleagues are keenly aware that the manpower needs of the country are not being met; that there is an overabundance of university degree holders with unmarketable or inadequate skills. Many of the faculty participants would prefer to see more selective admissions policies for the universities, with more young people encouraged to pursue technical training for the skilled trades. However, even if professional preparation at the university level were limited to smaller numbers, the faculty participants would remain dissatisfied with present programs. They are critical of the limited attention to instruction and evaluation of laboratory, clinical, analytical, and problem solving skills so important to the performance of graduates in the health services, industry, and other employment sectors.

There is less concensus on the prospects for success in instituting educational reforms throughout Cairo University. All of the fellowship participants were able to illustrate efforts to upgrade educational practices in their own courses. However, they were less enthusiastic about the likelihood of long-term continuation and expansion of efforts at reform. Views differ with respect to how much change to attempt, how soon, and what resources are essential. But many of the issues which they see as critical to implementing and institutionalizing educational reforms are concerns shared among the faculty and by administrators as well. These are discussed below.

   A. _Incentives_. There was complete unanimity among the participants that scientific research publications determine the award of promotion. While some were more knowledgeable about the specific procedures used in reviewing a candidate, all felt that efforts at educational reform have counted for little or no benefit toward promotion. In discussing the incentive structure for promotion, all of the fellowship participants expressed unprompted appreciation of President Hamdy's letters to their deans stating that credit toward promotion should be accorded to fellowship participants who strive to achieve educational reforms for Cairo University. However, several commented that many other minds need to be changed.

B. *Infrastructure*. A Higher Education Training Institute was created ten years ago at Cairo University. Its purpose is to provide pre-service programs in university teaching, curriculum development and evaluation to new graduates of Ph.D. programs--before they assume appointments to teaching roles at Cairo University. The Institute has received formal recognition by the Supreme Council of Universities, and the preservice requirement for new appointees carries the force of law. However, the potential of the Institute has not been achieved. Plans to correct understaffing and inadequate facilities are being addressed by leaders at Cairo University in the context of the fellowship programs for faculty development. New curricula more closely aligned with the educational problems and possible solutions at Cairo University are being planned. Continuing education and professional updates are being also considered as agenda for the Institute; the sessions will involve the collaboration of deans and junior and senior faculty in related fields to work on curriculum development and other educational concerns. It is important to note, however, that while these plans build upon an existing structure, continuing leadership and faculty commitment will be required to realize the plans.

C. Leadership. The Cairo University-IDA Third Education Project has received substantial attention and support at the highest levels of administration in Cairo University. However, until recently, operational leadership for both portions of the Project have been the responsibility of one department chairman in the Faculty of Medicine, a man whose other teaching, clinical, research, and administrative responsibilities were already considerable and whose professional stature has prompted assignments to international commissions. While he will retain responsibility for overseeing the Health Science Resource Center and its application to education in the health faculties, he has been joined in project administration by a former dean and internationally noted in his new position as vice president for research and the former dean is offering top leadership and the prestige to the coordination of planning for educational reforms. In addition, two of the long-term fellows, holders of Ph.D.'s who are completing graduate degrees in educational leadership, will be returning to Cairo University. They will be able to assist the senior leaders by coordinatinge the operation of these plans through the Higher Education Training Institute. The efforts of these more junior, associate professors are likely to be successful only with the continuing direction and support of the senior officials.

D. Financial Commitment. Budgeting for various hardware, software, and media services, remains the concern of many of the fellowship participants who are skeptical that they will have access to the resources they fell they need to institute the desired changes. Moreover, it remains to be seen whether a suitable space will be found for the Higher Education Training Institute where the classrooms are adequate and the the equipment procurred for it can be installed and used as intended. The question of financial resources has also been an issue

for the Boston Univerity collaborators on the project. Increases in stipends and tuition payments from fixed project funds along with the attention to selection of candidates on early site visits have diminished the opportunities for collaborative planning and individualized assistance; more site visits than remaining project funds will allow were intended so that the Boston University faculty could become more directly involved in the implementation of projects planned during the fellowship programs. Nonetheless, strenuous efforts are being made to extend available resources to accomplish the goals of the project and institutionalize the processes of educational reform.

Effects on the American Collaborators

Most of the foregoing discussion reflects on the impact of the project on the participants and educational practices at Cairo University. However, the experience has had notable effects on the American collaborators as well. Boston University faculty members who accepted teaching, consulting, and/or administrative roles in the project were interviewed regarding the impact of that participation on their personal and professional development, on the courses they teach, and on other aspects of their professional lives.

All of the B.U. professors said that their experience has promoted insights and understandings on many levels—philosophical, personal, and professional. Some spoke of gaining insights about the universality versus cultural-boundedness of knowledge and technology. Others noted a greater sensitivity to cultural differences but at the same time an increased awareness of heterogeneity within culture. All of the American participants praised the very high intellectual and moral calibre of the Cairo University fellowship participants. In fact, some of the Boston University faculty members established strong personal friendships with Egyptian colleagues.

All of the B.U. participants noted a much deeper understanding of some of the social and economic problems facing a developing country and the intractibility of those problems. For one, this has translated into a resurgent interest in international development through education, particularly in the third world. "Another part of the map has become clearer."

While the B.U. professors claimed that their experience with the Cairo University project had benefited them personnally and professionally in intangible ways, they could be much more specific about the influence of the project on their teaching. One developed a case study of an educational institution for his current issues course based on an amalgam of issues which he discussed with the Cairo University faculty members. The others cited how they integrated materials and examples drawn from the Cairo University fellowship project into their regular course assignments.

All of the Boston University participants claimed the experience has given them increased sensitivity to the special needs and differing cultural perceptions of international students in general, who are becoming a larger segment of the student populations in their regular courses at the university. One explained that now he tries to give examples of the application of theories or rules which have been drawn from other cultures, both to make his teaching more meaningful to foreign students and to heighten his American students' sensitivity to their own realms of experience. He noted that teaching a different population forced him to take a second look at his instructional materials and make some substantial changes. "It's easy to be wedded to these from one semester to the next, but not when you have to teach a very accomplished, challenging group of professors from another culture."

When asked if the impact of the experience with the Cairo University project could have been gained from teaching international students in regularly scheduled courses at home, one of the Boston University professors quickly replied: "No, it was working exclusively with the international scholars which heightened my appreciatio   all these issues. With only four or six international peo   of twenty or more Americans, you tend not to respond to the background of the international students but to the culture in which they are now sitting. But when all of your students are international, you can't help but think about whether what you are teaching applies in other cultures."

Significance

The foregoing provides an interim report on the Cairo University-Boston University Faculty Development Project. The basic dilemma facing the faculty exchange project has been inadequate financing. This has been noted by Burn (1980) as "by far the most pressing" problem for faculty exchanges in general. However, despite the strain on resources, the impact of this faculty exhange program has been substantial, where the individuals' assessments of personal impact are concerned.

It is inconceivable that the United States can provide continued international leadership if its people, especially educational leaders are undereducated in international affairs. The growing interdependence of nations makes individuals with interdisciplinary, international perspectives more valued contributors to the cause of expanding the international dimensions of learning at all levels of the nation's educational system. As Kerr (1980) persuasively argues, "the cause for internationalization of American education is not difficult to make." Increasing, the economic, political, and social interests of our country are affected by circumstances and events aborad. Only smaller problems remain national or regional in scope.

The logistical difficulties for group international faculty exchange are substantial, however the need is compelling, and the intangible returns to investments in terms of individuals' professional growth and personal development can be profound. Most recent data suggest that some tangible benefits in educational reforms at the departmental, faculty, and university   level   are   begining   to   emerge   as   well.

19