

DOCUMENT RESUME

ED 287 209

EA 019 717

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TITLE Developing Policies for Optimal Diffusion of Educational Innovations in China.
PUB DATE Apr 86
NOTE 43p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, CA, April 16-20, 1986).
PUB TYPE Viewpoints (120) -- Speeches/Conference Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adoption (Ideas); Agency Cooperation; Coordination; *Diffusion (Communication); Educational Change; Educational Development; Educational Improvement; *Educational Innovation; Educational Planning; Educational Policy; *Foreign Countries; Higher Education; Information Utilization; International Cooperation; *International Educational Exchange; International Programs; Questionnaires
IDENTIFIERS *China; University of Victoria BC

ABSTRACT

Focusing on educational reform in China, this paper suggests policies that will lead to the optimal diffusion of educational innovations so as to enhance China's modernization efforts. The intention is to identify a theory of knowledge about the types of educational policies likely to be most beneficial in helping China achieve its educational modernization objectives. Rogers' (1983) model, used as a framework for describing the phenomena under observation, posits four crucial elements in the diffusion of new ideas: (1) the innovation itself; (2) communication through certain channels; (3) time; and (4) the social system. The paper begins with a survey of educational development in China from before 1949 to the present. The recommendations are based on data collected, first, through the involvement of faculty members of the University of Victoria in cooperative programs with the East China Normal University in Shanghai, and, second, through an open-ended data-gathering questionnaire sent to 30 Chinese scholars who had also studied in Canada. Reviewed by China experts at the East-West Center in Honolulu, the policy recommendations call for (1) continuation of existing exchange programs sponsored by international agencies; (2) an increase in the number of Chinese scholars studying abroad and higher levels of support for Chinese students by western universities; (3) enhancement of the teaching of English as a foreign language, especially for adults; (4) special attention to development of the legal and administrative infrastructure of education in China; and (5) cooperative education programs to establish closer ties between education and industry. Appended are four papers detailing the procedures involved in executing and evaluating the collaborative programs described in the paper. (TE)

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DEVELOPING POLICIES FOR OPTIMAL DIFFUSION
OF EDUCATIONAL INNOVATIONS IN CHINA

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A paper read at the American Educational Research Association 1986 Annual Meeting, April 16-20, San Francisco, California.

(*The valuable suggestions of Dr. Glenn Shive, a specialist in Chinese History at the East-West Center, Honolulu, Hawaii are gratefully acknowledged.)

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Purpose

When the Chinese Communists came to power in 1949 they hoped their country would catch up with the developed countries by 2049. Now, 36 years have passed and the current leaders do not think they have done too well. Indeed, the Chinese Communist Party leader recently said they had "wasted 20 years" because of "radical leftist nonsense." (Hu Yaobang, cited by Burns, 1985.) Consequently, the Government now has plans to restructure economic and social life and is currently involved with developing the seventh five-year plan. Included in the plan are efforts to modernize China's education and help is being sought from several more developed countries.

The purpose in this paper is to suggest policies which will lead to the optimal diffusion of educational innovations in China so as to enhance the country's modernization efforts. The intention is to identify a theory of knowledge about the types of educational policies which are likely to be most beneficial in helping China to achieve its educational modernization objectives. Those theories which are highly resistant to criticism by experts at the East-West Center, Honolulu, and appear to represent the best policies are listed as recommendations. It is hoped that the findings and recommendations of the paper will be helpful to Chinese policy makers and be of particular importance to funding agencies in the more developed countries.

Theoretical Structures

Diffusion of innovations. Rogers' (1983) diffusion of innovations

model is used as a suitable framework for describing the phenomena which are being observed. There are four crucial elements in the diffusion of new ideas: (1) the innovation (2) which is communicated through certain channels (3) over time (4) among the members of a social system. Numerous important factors such as receiver variables, social system variables, and perceived characteristics of innovations affect the innovation-decision process. As well, the perceived attributes of innovations, the type of the innovation decision, the communication channels, the nature of the social system, and the extent of the change agents' promotional efforts all affect the rate of adoption of innovations. It should be noted that, in this model, an "innovation" does not have to be objectively new. Indeed, the would-be receivers may have heard of it before but will not have had to make an adoption/rejection decision.

Most past diffusion studies have viewed the process linearly, as described above, with the messages simply being transferred in one direction from a source to a receiver. Though much diffusion does occur in such a fashion, Rogers' (1983) concepts of "uncertainty" and "information" are cast at the outset of the process here. Uncertainty ". . . is the degree to which a number of alternatives are perceived with respect to the occurrence of an event and the relative probabilities of these alternatives. Uncertainty implies a lack of predictability of the future. It motivates an individual to seek information." Thus information about innovations is sought from, and exchanged between, near-peers; especially information about subjective evaluations of the innovations (Rogers, 1983: xviii).

Much of the policy development described below incorporates the

concepts of information and uncertainty in the extensive interactions between Chinese and Canadian educators. The educational innovations in question are simply any of the educational policies which are included in the final recommendations. They fit the model's definition of innovation and they may be communicated by mass communication or interpersonal channels over time to the members of the Chinese social system. Sometimes the innovation-decision process is collective while at others it is individual. Certainly the consequences of innovations occur over time and they are often very difficult to measure.

Public policies. Treadway (1985:6) provides a useful definition with, ". . . public policy is a series of related governmental decisions to act, or not to act, in a given area of responsibility." It assumes that a single decision seldom constitutes a policy. Indeed, Treadway (1985) carefully describes how research findings indicate that environmental factors (socioeconomic characteristics such as measures of education, income, urbanization, and industrialization) and political factors (party competition, voter turnout, apportionment) jointly shape policy. The two categories of variables should not be seen as competitors in the policy formulation process. Indeed, the two heighten the complexity of the situation here when considering, for example, the environmental-political differences between China and Canada.

However, in this paper some policies are proposed and so, as well as taking the above factors into account, the following definition of policies is adopted: ". . . the formulation of substantive goals and objectives for the organization as well as procedures and devices for the achieving of goals and the evaluating of performance" (Katz and

Kahn, 1966: 259-260). As Hodgkinson (1978: 66-67) stated policymaking is "high level" because it is concerned with ". . . values relating to the overall purpose, mission, or 'life' of the organization."

Educational Development In China

The data included here are drawn from Chinese Government statistics (China, 1983). In semi-feudal and semi-colonial old China 80 percent of the population was illiterate and the enrollment rate of school-age children was 20 percent. In 1947 only 155,036 people enrolled in higher education, 1,878,523 were in secondary schools, and 23,683,492 were receiving primary education. The geographical location of schools was extremely irrational with educational opportunities being particularly scarce in the hinterland. The total enrollment in schools of all types was 5.6 percent of the total population and the fields of study did not meet the needs of the nation.

In 1983 the enrollment in schools of primary-age children had reached 94 percent, there were 96,500 general secondary schools with 43.98 million students, and there were 1,128,000 students enrolled in higher educational institutions. The downfall of the "Gang of Four" in late 1976 marked the beginning of the new era in Chinese education as the Party and State shifted to "socialist modernization." The status and role of education was enhanced and its work gradually strengthened. The 12th National Congress of the Chinese Communist Party established education as one of the priorities in socialist construction and modernization. In the Constitution of the People's Republic of China (P.R.C.), adopted in 1982, several articles are devoted to the general

policies of education as well as to the status and role of education. During recent years the following "readjustment, restructuring, consolidation, and improvement" policies have been, and are being, implemented:

1. Speeding up the development of higher education;
- . . .
2. To accelerate the training of postgraduates, to send more students abroad, and to receive more foreign students;
- . . .
3. Progress has been made in changing the irrational structure of secondary education; and,
- . . .
4. Popularization of primary education in rural areas.

Recently, more emphasis has been laid on pre-school education, special education, minorities' education, self-study opportunities, teaching materials, school building construction, and the training of teachers. It is claimed that all this development, which is indeed considerable,

"lays a firm foundation for further development of the socialist educational system in China which not only meets the needs of socialist modernization but also manifests peculiarly Chinese traits. In accordance with the call that education should be oriented to the needs of modernization and the future and help nurture globally minded citizens, all teachers and staff on the educational front are making efforts to contribute to the material and spiritual civilization of socialism, and marching forward for the modernization of agriculture, industry, national defense, and science and technology." (China, 1983: 16.)

In the area of educational exchanges China has sent 26,000 students to study in 64 foreign countries since 1979. During the same period 6,100 students from 105 countries have pursued studies at 50 universities and colleges in China. Academically, China has had 700 representatives at international scholarly meetings since 1979 and, in

a similar time some 2,000 foreign specialists and scholars have lectured in China. By 1983, 150 Chinese universities had established links and cooperation agreements with over 250 foreign universities (Ni Mengxiong, 1985).

Some major external funding agencies' programs and policies are briefly outlined here:

(a) Canadian International Development Agency (C.I.D.A.)

A cornerstone belief shared by the Chinese and Canadian officials is that man can dominate his world and change it for the better. As of December, 1984, projects worth \$81 million have been approved for China in institutional twinning (60 percent), general scholarship (15 percent), and consulting firms (25 percent). Twenty five universities are involved in 55 projects aimed at technology transfer by focussing on institution building (A.U.C.C., 1985).

(b) World Bank

When the P.R.C. became a member of the International Monetary Fund and acceded to membership in the World Bank in 1980 it surprised everyone by asking that its first project be in higher education. The Bank provided funds for the purchase of equipment, fellowships, and for visiting specialists in 28 key universities. Currently there are 1,200 Chinese students studying abroad under this plan including 780 in the U.S.A. and 140 in Canada. Other World Bank projects include ones promoting agricultural colleges (\$75 million), polytechnics, television, rural health, and medical education (A.U.C.C., 1985).

(c) International Development Office (I.D.O.) of the Association of Universities and Colleges of Canada (A.U.C.C.)

I.D.O., with World Bank financial support of \$125 million, will take

part in the China Provincial Universities Project which will involve the upgrading of staff in 60 provincial normal, comprehensive, technical, and medical universities. An Advisory Panel will work with Chinese Ministry of Education officials (I.D.O., 1985).

Future goals. China recently (Parkins, 1985) made public its Seventh Five Year Plan (1986-90) after a year of deliberations by the Central Committee of the Chinese Communist Party. The main proposals for education include:

1. Producing 2.6 million graduates and 200,000 postgraduates in science, technology, and management--an increase of 70 percent and 400 percent respectively over the figures for the previous five years;
2. Sending much larger numbers of students to overseas universities;
3. Vigorously strengthening higher education's links with industry and taking further steps to ensure that research and study is geared directly to profitable production and the development of new technology growth areas;
4. Turning out two million specialized scientific, technological, and cultural personnel from the country's colleges, at or above degree level; and,
5. A huge expansion of technical and vocational education in the schools.

The plan is due to receive final approval from the National People's Congress in the spring of 1986.

Methodology

It is with the above stated environmental, political, and

theoretical considerations in mind that the policy formulation objectives of this paper are undertaken. The information seeking included two phases, viz.: first, experiential program involvement and, secondly, open-ended questionnaire data gathering.

Educational Program Involvement

The writer, and the Faculty of Education of which he is Dean, have been involved in educational programs with Chinese colleagues since 1980. These programs will be described briefly because they constitute the experiential grounding upon which some of the later recommendations are founded. Or, upon which judgmental decisions are taken in keeping with knowledge of diffusion research findings (Rogers, 1983).

In 1980 the President of the University of Victoria, British Columbia, and the President of East China Normal University, Shanghai, signed an agreement which called for the two institutions to cooperate in the pursuit of knowledge, to exchange publications, and to initiate scholarly exchanges of personnel.

I.D.R.C. Programs. In June 1982, Dr. E.E. Owen (University of Victoria), an I.D.R.C. official, and the President of E.C.N.U. met in Shanghai to discuss program specifics. The immediate outcome was a special I.D.R.C. grant which permitted 13 E.C.N.U. academics to visit the University of Victoria for one month early in 1983. They took part in seminars, listened to lectures, and visited a wide variety of educational institutions. The lectures and seminars dealt particularly with educational research design, measurement, evaluation, curriculum studies, educational administration, extension programs, and professional preparation. As well, there were numerous banquets and

visits to Canadian homes which certainly helped to form the foundations of friendships and mutual understanding.

In May 1983, five University of Victoria faculty members spent three weeks at E.C.N.U. giving lectures and initiating cooperative research projects with their counterparts. This led to I.D.R.C. providing \$160,000 for the following cooperative research projects to be undertaken in a two-year period:

1. Active learning in middle schools.
2. Foreign language [English] teaching in middle schools and universities.
3. A comparative study of school principals in Eastern China and Western Canada.
4. Computer assisted learning in physics.
5. Distance education delivery by television.
6. Children's acquisition of first symbolic concepts.

Additionally, this first I.D.R.C. grant, together with University of Victoria funds, enabled four E.C.N.U. students to pursue graduate studies at the University of Victoria in curriculum studies, educational psychology, early childhood education, and language arts.

In the fall of 1985 I.D.R.C. agreed to provide a further \$194,000 over two years for Phase II of the cooperative research projects and to pay for five Chinese professors to receive advanced training in Canada.

W.U.S.C. Programs. During 1984-85 the World University Service of Canada sponsored 17 P.R.C. scholars from many Chinese universities to engage in their fields of study at universities across Canada. Prior to the 17 educators' return to China they were brought to the University

of Victoria for a two-week Pedagogical Institute. The purpose of the Institute was to prepare the Chinese scholars to pass on what they had learned in Canada to their colleagues and students at home. The writer was involved with this group and received written suggestions from the group members on how such people may be more effectively aided by Canadians.

Summer institutes. During the summers of 1984 and 1985 the University of Victoria, in collaboration with E.C.N.U., held seven-week Summer Institutes in Shanghai for 20 Canadian students. The students studied the Chinese language plus "Education and Society in China" under the guidance of University of Victoria and E.C.N.U. instructors. Another Institute is planned for 1986.

Conference. In December 1984 the University of Victoria sponsored a two-day national conference on "Education in China Today." Twenty two papers were presented (13 by Chinese scholars) and 19 of them concerned results from Phase I of the above mentioned I.D.R.C. projects. The papers are to be published in book form with funds provided by C.I.D.A.

Visiting scholars. As well as the visiting scholars referred to above, the University of Victoria offers two Fellowships per year to Chinese graduate students, private donations pay for others, and the Canadian Department of External Affairs is providing funds for four students this year. Additionally, the Chinese send some students themselves so that, this academic year, there are 31 students from many parts of the P.R.C. pursuing graduate studies in a variety of fields. The writer chairs the President's Advisory Committee for Relations with the P.R.C. and in that capacity has frequent ongoing interactions with the visiting students.

C.I.D.A. proposal. Presently the University of Victoria is having a \$1.2 million grant proposal considered by C.I.D.A. The intent is to develop over a five-year period an M.Ed. program at E.C.N.U. which will initially be jointly taught by E.C.N.U. and University of Victoria instructors but finally all the teaching will be done by E.C.N.U. faculty. As well, five E.C.N.U. faculty members will complete master's programs at the University of Victoria in learning theory, curriculum studies, evaluation and measurement, research design, and educational administration. The overall purpose being to raise the level of competence in educational research at E.C.N.U.

Visit. An important aspect of this writer's qualifications to suggest policies for education in China is his visit to China in the fall of 1984. This enabled him to see the living and working conditions of the Chinese people and to visit a variety of educational institutions. Additionally, it helped him to consolidate further his friendship with, and understanding of, colleagues at E.C.N.U.

Planning and evaluation. It cannot be overemphasized that a great deal of planning is required for programs such as those referred to above to be successful. The University of Victoria has been particularly fortunate in having Dr. E.F. Owen enthusiastically organize many of the programs. To give a more complete idea of what is involved in executing and evaluating programs the following documents are included as appendices to this paper:

Appendix A Administrative Roles and Responsibilities

Appendix B Planning for the Arrival of Professors and Students from China in Study Programs at the University of Victoria

Appendix C Evaluation Requirements and Guidelines

Appendix D Evaluation of Training.

As well, the University of Victoria has a briefing manual for anyone visiting China to study. It includes:

the geography, history, and people of China

political life

the economy

business etiquette

language

travel requirements

The manual is accompanied by an audio cassette containing some basic Mandarin words and phrases.

Questionnaire

The following open-ended questionnaire was administered by mail to 30 Chinese scholars* who live in most regions of China and who have spent at least one year studying a variety of disciplines in Canada; all were at the University of Victoria sometime in 1985. Ninety percent of the questionnaires were completed and returned.

Based on your personal experiences in China and Canada, what educational policies and programs do you think Canada should adopt which would be most beneficial to China's modernization efforts? Please write your answers on this page in English and return it to the Office of the Dean of Education (MacLaurin Bldg., Room 243) by December 10, 1985.

Name:

Chinese University
Department

*The subjects contributions, along with those of numerous other colleagues, are acknowledged with thanks.

Reliability check. The writer analyzed the data and identified 18 major recommendations (which would be innovations in China) made by the subjects. Some subjects made the same recommendations as others made and all made several different ones. Having numbered the recommendations and briefly described each, the writer then assigned a number to each subject. Subsequently, he wrote by the side of each recommendation the identification numbers of the subjects who had made them.

The list of 18 recommendations and the raw data (plus I.D. numbers) were then given to a China expert at the East-West Center, Honolulu. He was asked to read the recommendation and the raw data then assign subject I.D. numbers alongside what he considered to be the appropriate recommendations. There was 90 percent agreement between the expert and the writer. In fact there were only four minor differences of opinion which were easily resolved in subsequent discussion. It is therefore reasoned that other reasonable educators would draw close to the same conclusions when analyzing these questionnaire data.

East-West Center Discussions

Prior to writing the policy recommendations as they appear below the writer prepared them in draft form and discussed them separately with China experts* at the East-West Center, Honolulu. Some

*As well as Dr. Glenn Shive's most helpful suggestions, valuable assistance was gratefully received from Wu Zhengkang (Nankai University) and from Yang Zijing (East China Normal University)

modifications were made until the recommendations received little criticism from the experts. However, the final recommendations are those of the writer.

Interpretations And Recommendations

Interpretations

Using the means and the framework described above, a theory of knowledge about the types of educational policies [innovations] likely to be beneficial in helping China to achieve its educational modernization objectives was identified. Those particular proposed policies which resisted criticism will be listed in this section as recommendations. As such, the recommendations lend themselves for empirical testing or, more likely, they could simply be adopted as policy innovations. It is hoped that Chinese educational policy makers, and funding agencies in more economically developed countries, will find the recommendations to be helpful and beneficial.

Before stating the recommendations, a brief summary of the rationale for the policy developmental process will be recorded here. First, in applying Rogers' (1983) diffusion model, extensive information exchange took place in relation to the uncertainties involved. This exchange was between relatively homophilous* educators from China, Canada, and the U.S.A. The educators collectively

*Homophily is the degree to which pairs of individuals who interact are similar in certain attributes, such as beliefs, education, social status, and the like (Rogers, 1983: 18).

identified the innovations [suggested policies/recommendations] which are now ready to be, or are being, or have been, communicated over time to members of the Chinese social system. Many of these innovations, if decided on, will be authority decisions and, as such, will have enhanced chances of adoption (Rogers, 1983: 30). Furthermore, the communication of the innovations will ultimately be between opinion leaders in the Chinese social system and the system's members. It is well established that behaviour change takes place most effectively when the communication of the innovation is between homophilous dyads (Rogers, 1983: 18); and the opportunity exists. A closely related point here is that mass communication effectively creates awareness though not necessarily behaviour change; this factor has also been accounted for in these policy formulations.

Finally, so far as the diffusion model is concerned, the innovations have been considered in light of their relative advantage, trialability, observability, compatibility, and complexity.[†] Overall, they have been selected as innovations which are likely to react positively so far as these important adoption characteristics are concerned.

[†]Relative advantage is the degree to which an innovation is perceived as better than the idea it supersedes. Trialability is the degree to which an innovation may be experimented with on a limited basis. Observability is the degree to which the results of an innovation are visible to others. Compatibility is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters. Complexity is the degree to which an innovation is perceived as difficult to understand and use (Rogers, 1983: 15-16).

Secondly, considering the environmental-political factors, all the proposed innovations are broadly in accord with the publicly stated plans of the Chinese political and educational authorities (as identified in the earlier part of this paper). The environmental considerations are accounted for further by the extensive exchanges which have taken place between the Chinese educators and the writer. Importantly also within this dimension is the fact that the recommendations are in keeping with the existing policies of the major international funding agencies.

Recommendations

The recommendations are made with the humble understanding that, "Changing people's customs is an even more delicate responsibility than surgery." (Spicer, 1952: 13). And, that, "The innovator makes enemies of all those who prospered under the old order, and only luke-warm support is forthcoming from those who would prosper under the new (Machiavelli, 1513: 51). As well, "One must learn by doing the thing, for though you think you know it--you have no certainty, until you try (Sophocles, 400 B.C.). The recommendations are also made with the full realization that China faces daunting economic and political tasks in trying to catch up with the leading Western nations by the middle of the 21st century. It will require an annual growth in per capita income--currently at about \$300--of 6.5 percent. And, according to Burns (1985), only two relatively small nations, Greece and South Korea, have approximated such rapid growth any time since 1960.

All the recommendations made in the questionnaire data are included, at least so far as some positive or negative comment is concerned, and the residue are grounded in the experiential processes

described above.

Recommendation 1. Though the Chinese scholars questioned were often not fully aware of existing foreign aid programs, they generally recommended for action what the major aid agencies are already doing. The author concurs and, therefore, *it is recommended that the existing programs of agencies such as the World Bank, C.I.D.A., I.D.R.C., I.D.O., and W.U.S.C. be continued for the foreseeable future.*

Recommendation 2. Typically, in recent years, universities which are involved in development programs with China have been advised to stress friendship and mutually beneficial cooperation. *Friendship and mutually beneficial cooperation should still be stressed but great long-term care should be taken to ensure that it is truly genuine and not simply a facade. When this does occur mutual understanding begins to emerge and substantial educational progress occurs. This level of understanding is the essence of what is needed for proper benefits to accrue and it must be striven for with enthusiastic energy. When it is achieved, the mutual satisfaction is very rewarding. In this context, efforts must be made by Chinese and Western educators to routinize exchanges once the "novelty" wears off or "the bloom is off the rose".* Of course, it is not known precisely when this is likely to occur but it will happen in the types of substantial programs recommended here. Diffusion research consistently shows that if the cumulative adoption time path of a diffusion process is plotted, the resulting distribution can generally be described as taking the form of an S-shaped (sigmoid) curve. The regularity results from the fact that initially only a few members of the social system adopt the innovation in each time period. In subsequent time periods, an increasing number

of adoptions per time period occur as the diffusion process begins to unfold more fully. Ultimately, the trajectory of the diffusion curve slows and begins to level off--finally reaching an upper asymptote. At such a point diffusion is complete. It should be noted that the exact form of each curve is likely to differ, for example, diffusion may be slow or fast depending on internal or external influences (Mahajan and Peterson, 1985: 8-19).

Recommendation 3. In this context "exchange programs" include all movements of personnel into and out of China--they do not have to be one-for-one direct exchanges. *It is recommended that ways and means be sought to increase the numbers of Chinese students and professors studying and researching in Western countries. Similarly, more Western people should study and engage in research in China.* Recommendations 4 to 7 expand on this exchange theme.

Recommendation 4. *Western universities should seek innovative ways to enable Chinese students to pay their tuition and living expenses when in the West. For example, tuition fees could be waived or lowered, Chinese students could be "employed" as Chinese language tutors in return for living expenses, or other work-study programs could be initiated.*

Recommendation 5. *Special efforts should be made to expand exchange programs in the areas of science and technology (particularly in fields new to China).*

Recommendation 6. There has been a tendency for many Chinese visitors to the West to be solely concerned with languages. While not suggesting languages should be neglected *it is recommended that special efforts be made to enable students of the social sciences, management,*

and the other humanities to be involved in exchange programs (cf. Thurston and Parker, 1980).

Recommendation 7. The actual taking of the TOEFL causes some financial and logistical problems for Chinese students, but it may be needed in the long-run, so it is recommended that Western universities try to find ways to administer the TOEFL without causing undue problems for Chinese students.

Recommendation 8. It is recommended that particular attention be paid in Western universities to sensitizing professors to the instructional needs of Chinese students. It may be helpful to give more quizzes, conduct discussions to ensure comprehension, and to offer some after-class instruction. As well it is helpful to have a course textbook and to assign pre-class reading of it (in addition to library readings). It is not effective to rely on the Chinese student simply to take notes in lectures.

Recommendation 9. Western educators should cooperate with Chinese university teachers to design programs of instruction. If the development proves to be mutually satisfactory, creative learning should occur which would require individual students to think, debate, and draw their own conclusions. Given these means the students should then be held responsible for their own learning.

Recommendation 10. Efforts should be made by Western and Chinese agencies to increase and enhance the teaching of English as a foreign language (particularly for adults) by paying particular attention to:

- (a) Having pedagogical courses available in Western faculties and colleges of education for Chinese exchange people to take;
- (b) Enabling more Western experts to hold visiting appointments in

Chinese universities, colleges, and polytechnics; and,

(c) Publishing a comprehensive, standard EFL textbook which would particularly serve mature students, and could be used throughout China. The book should be structured as a learning series which could be used as needed for students with varying abilities. Such a book should be developed under the direction of the Chinese State Commission on Education.

Recommendation 11. Western educators with administrative and managerial capabilities should work co-operatively with Chinese officials to enhance the effectiveness of operations in Chinese educational institutions. This should particularly occur in administrative and academic registrars' units of universities, in making more optimal use of existing facilities, and in making full use of libraries.

Recommendation 12. Despite some previous failures, China is not attempting to expand the role of law. Western countries should provide exchange opportunities for people who could facilitate development in the areas of:

- (a) Personnel and infrastructure to staff the new legal system;
- (b) Public education;
- (c) Changes in Civil and Economic Law (particularly International Law).

(cf. Li, 1980.)

Recommendation 13. Chinese university officials should explore the possibilities of introducing cooperative education degree programs. Such programs include four real paid work experience terms interspersed among regular on-campus academic study terms. Example models can be found in North America and the United Kingdom; it is found that, apart

from having educational values, the programs help to develop strong educational links with industries.

Recommendation 14. Of the first 1,500 diffusion studies only 38 were concerned with the consequences of innovations. This is primarily because consequences are difficult to measure--largely because they occur over time. However, *it is recommended that cross-sectional consequences studies of all policies and programs suggested here be undertaken at regular intervals.* Some are already underway, for example, in the University of Victoria's I.D.R.C. and W.U.S.C. programs (cf. Appendices C and D). Consequences data provide excellent information for administrators and are extremely important when establishing new policies or adapting existing ones.

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APPENDIX A

UVIC/ECNU JOINT RESEARCH PROGRAM

(Prepared by E.E. Owen)

UVIC/ECNU JOINT RESEARCH PROGRAM

ADMINISTRATIVE ROLES AND RESPONSIBILITIES

1. CO-ORDINATOR
2. STEERING COMMITTEE
3. RESEARCH TEAMS

UVIC/ECNU JOINT RESEARCH PROGRAMAdministrative Roles and ResponsibilitiesCo-ordinator

- . Act as official representative with IDRC on all matters concerning the research program.
- . Manage the budget at UVic disbursing the funds to each project in accordance with the provisions of the grant.
- . Administer all decisions made by the Steering Committee and by the project research team.
- . Administer all logistical needs.
- . Maintain regular contact with the co-ordinator at ECNU.
- . Distribute all relevant information, documents, research papers, and reports to research teams.
- . Arrange regular meetings for the Steering Committee and general meetings for all research personnel.
- . Prepare interim and final reports for IDRC.

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Steering Committee

- . To be composed of three members of the research program: the Co-ordinator, the Evaluator of research projects and program, and one member-at-large selected from the research teams.

In consultation with the research teams -

- . formulate policy concerning administration, finance and the development of the program.
- . determine procedures for the evaluation of the program, individual projects and the training program.
- . determine the nature of the training program for the trainees from ECNU.
- . play an active role in problem solving and monitor their solution.
- . establish a schedule for the preparation of interim and final reports.

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Research Teams

- . Implement the research project according to the objectives and procedures outlined in the original proposal.
- . Develop schedules for the completion of the project in consultation with counterparts at ECNU.
- . Prepare research visit reports according to evaluation requirements and guidelines, and specifically identify intervisit activities and responsibilities.
- . Arrange for purchase of equipment in consultation with counterparts at ECNU.
- . Maintain regular communication with counterparts at ECNU.
- . Prepare interim and final reports on the research project.

APPENDIX B

PLANNING FOR THE ARRIVAL OF PROFESSORS AND STUDENTS
FROM CHINA IN STUDY PROGRAMS AT UNIVERSITY OF VICTORIA

(Prepared by E.E. Owen)

Planning for the Arrival of Professors and Students
from China in Study Programs at University of Victoria

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BEFORE ARRIVAL :

- Arranging accommodation - rent between \$150 - \$250 per month
 - furnished including bed and bed clothes, desk and light, closet, etc.
 - housekeeping - kitchen, fridge, bathroom
 - availability of laundry facilities
 - prefer close to UVic (Bus routes)
 - utilities included
 - prefer a situation where tenant has the opportunity to interact with Canadian family or landlord
 - reasonable use of T.V. and phone
 - visit possible residence and pay the first month's rent.
- Medical Insurance coverage
- Investigate and arrange for possible courses to be taken or audited
- Put together an information package including:
 - UVic course calendar
 - local maps
 - local points of interest
 - UVic services
 - bus and ferry schedules
 - etc.
- Confirm arrival date and time by any possible means
- Arrange for the assignment of offices and mail boxes

UPON ARRIVAL:

- "Multicultural" reception at airport or bus station by faculty and some wives, Chinese students already here etc.
- exchange important phone numbers and addresses
- provide cash for first month's food and necessities
- sign necessary receipts and medical insurance papers
- arrange transportation to new residence (one Chinese visitor per vehicle if possible)
- pass out and briefly explain information packages
- deliver to new accommodation - introduce to landlord and family
 - show to room
 - familiarize with new home: Location of washroom, kitchen and all available facilities in the home
 - arrange house/apartment keys and use of locks
- take visitor to the nearest local food store and buy groceries
- explain Canadian currency
- if close by show them around a local department store or mall
- point out location of their new residence on city map and show important features on the map
- explain and show them how to get to the university
- generally see that they are as comfortable as possible
- make arrangements to meet again as soon as possible

AFTER ARRIVAL (within the first 3 or 4 days)

- Tour the city and suburbs including:
 - Fort Rodd Hill
 - Downtown, inner harbour, waterfront, etc.
 - Museum, Craigdarroch Castle
 - Beacon Hill Park
 - Mount Tolmie and Mount Douglas
 - University
- Take to university and meet education faculty and staff
- Investigate student or professor's interests and decide on an appropriate program of courses
- Introduce students to appropriate course and directed studies professors
- Register students and arrange for special library cards
- Tour of the Education building - show to individual offices
 - show to general office and mail boxes
- Meet other Chinese colleagues
- Detailed tour of UVic including: Main Library, Bookstore & Post Office, athletic centre, University Centre, etc.
- Introduce Chinese to interested faculty outside of the Department of Education i.e., professors in Pacific and Oriental Studies
- Meet and have lunch with the Dean of the Faculty of Education
- Open savings accounts at convenient banks
- Arrange to meet Canada/China Friendship Association officers
- Have a Chinese dinner with all new arrivals
- Purchase necessary textbooks with students
- Take pictures during city tour and of the Chinese in their offices and with their landlords, etc.

- Show each of them where everybody else lives
- finally - check that all is well including cooking, and rooms, etc.
 - if no good make arrangements for new accommodation if necessary
- Have a meal in a Chinese restaurant with whole group.

Department of Social and Natural Sciences
September 25, 1985.

APPENDIX C

IRDC COLLABORATIVE RESEARCH PROGRAM BETWEEN
EAST CHINA NORMAL UNIVERSITY AND THE UNIVERSITY OF VICTORIA

EVALUATION REQUIREMENTS AND GUIDELINES

(Prepared by E.E. Owen)

IDRC COLLABORATIVE RESEARCH PROGRAM BETWEEN EASTCHINA NORMAL UNIVERSITY AND THEUNIVERSITY OF VICTORIAEVALUATION REQUIREMENTS

AND

GUIDELINES

The team which will be responsible for the overall evaluation of the grant include: Dr. T. Owen and Dr. W. Shera of the University of Victoria, and Dean Jin and Professor Qian of ECNU. Based on our experience during Phase I, a standardized set of guidelines for research visit reports and interim/final reports have been developed. We are also preparing guidelines for training agreements, and instruments (questionnaires and interview guides) for post-training evaluation and followup. In addition, regular meetings of researchers at each campus and meetings during delegation exchanges will be conducted to specifically monitor progress, identify and solve problems, and document achievements. This is not seen as replacing the research documentation of each of the projects, but as supplementary documentation which specifically addresses the overall progress and achievements of the IDRC grant. The four major components of the evaluation strategy are as follows:

<u>Component</u>	<u>Responsibility</u>	<u>Due Dates</u>
1. Research Reports -interim -final	Research Teams - UVic - ECNU	Interim - Sept. 2, 1986 Final - Dec. 5, 1986
2. Research Visit Reports -research projects -leader's report	Research Teams - UVic/ECNU Delegation Leader - ECNU/UVic	Three weeks after return One month after return
3. Evaluation of Training -training agreement -training evaluation -follow-up	Supervisors ECNU/UVic & Trainee Supervisor UVic and Trainee Supervisor ECNU & Trainee	Prior to arrival at UVic End of training 4-6 months after return to ECNU.
4. Coordinators Reports -interim -final	Dr. Owen Dean Jin	Interim - Sept. 15, 1986 Final - Dec. 15, 1986

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The outlines for interim/final research reports and research visit reports are attached. The visit/exchange reports to be completed by visiting researchers and the head of delegations is seen as a method of not only tracking research activities in an ongoing and succinct fashion but as a useful means of facilitating communication amongst and between research teams. At UVic reports should be forwarded within the prescribed due dates to the evaluator (Dr. W. Shera) and, in the case of visit reports, the leader of the delegation. They will then be reviewed for completeness and changes may be requested. All finalized reports will then be forwarded to Dr. T. Owen for distribution to research teams and IDRC. It is also expected that each research project leader will share the finalized report with their counterparts at ECNU. A similar process of review and distribution has been established at ECNU.

RESEARCH REPORT OUTLINE

1. RESEARCH PROJECT & RESEARCHERS
2. BACKGROUND AND RATIONALE FOR THE RESEARCH
3. SPECIFIC OBJECTIVES OF THE RESEARCH
4. METHODOLOGY
 - research design and methods of data collection
 - research activities completed including training/exchanges/consultations and work conducted between exchanges.
 - other non-research related activities
5. FINDINGS
 - Research Outcomes
 - detailed results of the research
 - unanticipated outcomes
 - educational implications of the research particularly for curricular, training programs, preparation of educational materials, etc.
 - recommendations for future work
 - Other Outcomes
 - benefits derived from exchanges
 - benefits derived from training (if applicable)
 - observations regarding enhanced research capacity
 - difficulties encountered
6. DISSEMINATION OF RESULTS
 - formal presentations of results
 - publications completed
 - publications planned

APPENDICES

- detailed reports/publications
- list of equipment and materials left at ECNU

RESEARCH VISIT REPORTGUIDELINES

1. Researcher/s
2. Research Project
3. Location/s of visit
4. Period of Visit
5. Objectives of the Visit
6. Pre-Departure Preparation
7. Major Activities During Visit
8. Equipment and materials (books, articles, etc.) given to host institution
9. Evaluation of the Utility of the Visit
 - (a) Degree to which the objectives were achieved
 - (b) Unanticipated outcomes
 - (c) Difficulties encountered
 - (d) Agreements regarding intervisit activities
10. Observations Regarding Enhanced Research Capacity at ECNU or UVic at Both the Individual and Institutional Level. (Specifically identify indicators of enhanced research capacity e.g. skills, research projects, publications, etc.)
11. Other Observations/Comments

APPENDIX D

IDRC - COLLABORATIVE RESEARCH PROGRAM

EVALUATION OF TRAINING

(Prepared by: E.E. Owen, W. Shera, N. Mickelson)

IDRC - COLLABORATIVE RESEARCH PROGRAM

EVALUATION OF TRAINING

Training is an important component of the IDRC collaborative research program. Based on our experience in Phase I we are attempting to develop a more systematic approach to the evaluation of training. As in the other components of our evaluation strategy it is essential that the system developed be both feasible and useful. We are suggesting that the strategy for evaluation include three components:

1. Training Agreements
2. Post-Training Evaluation
3. Follow-up of Trainees

1. TRAINING AGREEMENTS

The experience a trainee receives depends largely on a clear agreement on the objectives to be achieved during the period of training. A training agreement should be completed by a trainee and his supervisor well in advance of his/her arrival in Victoria. The agreement should also be approved by the UVic supervisor. Such an agreement would include such items as: names, experience and affiliation of trainee and ECNU/UVic supervisors; objectives to be achieved during the training period; specific areas of knowledge and skill to be acquired; courses to be taken; preparatory work required. (language, etc.); and relationship to IDRC research project/s. This agreement would be completed and approved prior to the trainees arrival at UVic and would, we believe, optimize the benefits of the training.

2. POST-TRAINING EVALUATION

During the training both supervisors and trainees would be encouraged to use logs to record thoughts/reactions/ideas regarding the training. At the end of the training trainees and supervisors will complete questionnaires addressing such issues as: the degree to which the objectives were achieved; increases in knowledge and skill; satisfaction with the training; unanticipated outcomes; difficulties encountered; etc.

3. FOLLOW-UP OF TRAINEES

IDRC is very interested in enhanced research capacity at both the individual and institutional levels. To ascertain the impact of training on trainees it is essential to document what they do with what they have

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learned when they return to ECNU. Questionnaires/interview guides will be administered to trainees and their supervisors at ECNU 4 - 6 months after their return to ECNU. It is expected that these can be done by the evaluator or leader of delegations during research visits to ECNU. These instruments would cover such issues as: involvement in research projects/groups, publications completed or planned, perceived benefits of the training received at UVic, etc.

The above represents our overall framework for evaluating the training component of the IDRC collaborative research program. Any comments you would care to contribute would be appreciated.