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ABSTRACT

Strategies for dissemination of international education materials on an international level are discussed in this paper. The analysis focuses on dissemination frameworks applicable to member countries of the Pacific Circle Consortium. These countries are Australia, Canada, Japan, New Zealand, and the United States. Section one of the report explains dissemination activities of eight educational research and development agencies within the Consortium countries. Section two summarizes findings of seven studies conducted in recent years concerning the structure and effectiveness of dissemination efforts in the United States. Section three presents a framework for analyzing dissemination patterns. The framework can be used by different nations whose educational systems have diverse structures and goals. This framework provides guidance for the Consortium agencies to document and analyze their international dissemination efforts as they design and implement effective processes for disseminating the results of the research and development from other countries. (AV)

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FRAMEWORK FOR POLICY ANALYSIS OF
ALTERNATIVE PATTERNS OF INTERNATIONAL
EDUCATION DISSEMINATION

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PREFACE

Educational dissemination is plagued with a variety of definitions, despite such efforts as National Dissemination Forums and research studies designed to illuminate and ultimately increase the effectiveness of this function for improving schools. The narrow definition of simply "distributing information" has generally given way to a broader view that dissemination involves, somehow, the selection from alternatives of educational programs and processes which meet the needs and goals in a school, and are providing support and assistance needed to put them into local use.

As the realities of the dissemination process become more clear, it is obvious that effective dissemination is not a simple matter. Several studies in recent years have begun to shed light on factors which make it more effective.

A basic premise of the Pacific Circle Consortium is that the international dissemination of educational programs and processes should occur, and that it can result in increased international and intercultural understanding. Complex and unscientific as the dissemination process is at local, state or national levels, the additional factors introduced when dealing among nations make it a virtual educational frontier.

The activities of the Pacific Circle Consortium are at the point of offering a rich array of opportunities to look at the international dissemination function. The result can be a significant addition to the body of knowledge for planning and making decisions about such future efforts.

Members of the Pacific Circle Consortium are beginning to deal with the dissemination function in a systematic fashion. An initial exploratory session was conducted on the topic at the Fifth Annual Meeting in Portland in the fall of 1981. It is hoped that the following document will provide some guidance--indeed, a framework--for the Consortium agencies to document and analyze their international dissemination efforts as they design and implement effective processes for disseminating the results of R&D from other countries.

Lawrence D. Fish

CONTENTS

Introduction	1
Pacific Circle Dissemination Activities	2
Dissemination Studies and Data Collection Frameworks	4
Framework for Analysis of Dissemination Patterns	8

INTRODUCTION

The Pacific Circle Consortium was formed in 1977 as a program of the Organization for Economic Cooperation and Development/Centre for Educational Research and Innovation (OECD/CERI). The goal of the Consortium is to increase international and intercultural understanding of people of the Pacific Nations. The members of the Consortium are the OECD nations of the Pacific Rim: Australia, Canada, Japan, New Zealand and the United States. Within these countries, eight educational research and development agencies are participating:

Australia	Curriculum Development Centre (CDC)
Canada	University of British Columbia (UBC)
Japan	Hiroshima University (HU) National Institute for Educational Research (NIER)
New Zealand	Department of Education (NZDE)
United States	Curriculum Research & Development Group University of Hawaii (CRDG) East-West Center/Culture Learning Institute (EWC) Northwest Regional Educational Laboratory (NWREL)

Three additional agencies are associate members: Alaska Department of Education (United States) and Tasmania Department of Education (Australia) and Institute for Studies in Education, Deakin University (Australia).

The Consortium carries out two types of activities to achieve its goal:

1. Exchange of information, materials and personnel among members in areas of mutual interest and concern
2. Development of educational materials and processes with a multi-cultural perspective

The sharing of educational programs and processes among nations--international dissemination--thus constitutes a major focus of the Consortium.

PACIFIC CIRCLE DISSEMINATION ACTIVITIES

The research and development agencies in each of the countries participating in the Consortium have different roles and authorities and this is a primary factor in planning and implementing dissemination activities.

The New Zealand Department of Education is a government agency. In theory, it has power to direct teachers to participate, and it is in a position to offer curriculum materials to all New Zealand schools.

The National Institute for Educational Research in Japan is an autonomous research and development agency, though it often carries out service research for the Japanese Ministry of Education. Its impact on educational policy and practice in Japan is mediated through Ministry decisions about whether the results of its R&D work should be implemented. It has no direct authority over school curricula, though it often influences them through developing guidelines and materials. As in state research agencies in other countries, NIER experiences some tension between "pure" and "service" research interests.

Initially, the Curriculum Development Centre was a statutory authority of the Australian Government. CDC's status has recently been changed. It is now the Curriculum Section of the Commonwealth Department of Education and no longer has independent statutory authority.

The Northwest Regional Educational Laboratory is an independent, nonprofit organization governed by a board of representatives from the states in the Northwest region. While it is expected to contribute to educational knowledge and practice, it has no authority to impose curriculum materials or direct schools to adopt programs.

The Curriculum Research and Development Group is a part of the University of Hawaii, funded through the State of Hawaii. In its curriculum development work, it has a nongovernmental perspective; that is, it operates as an autonomous organization preparing curricula which it must "sell" to schools. In reality, links between CRDG and the Hawaii education system are extremely strong.

The East-West Center is a national educational institution created by the U.S. Congress, incorporated under an international governing board. A large part of its funding comes from the U.S. Congress through the State Department; other funding comes from the Asian and Pacific countries who participate in its programs. It thus has supra-national as well as national allegiances and constituencies. However, its mandate is primarily to facilitate processes of international interaction. Curriculum development or educational improvement per se are not its primary tasks.

The University of British Columbia and Hiroshima University have the typical support structures and missions which would be expected of public institutions of higher education.

Operating within their different legal structures and assigned or adopted missions, each of the agencies conducts activities which can be labeled as dissemination. To date, each has instituted activities to disseminate products of the Consortium on a piecemeal basis, fitting them into existing activities which were designed to make their own programs available to schools. An example is the joint publication of "Harvesting Food Resources of the Ocean" by NWREL and the Curriculum Development Centre in Australia. It will be printed by CDC and NWREL will inventory copies at its headquarters in Portland. The NWREL Marketing Office will disseminate the product along with other Laboratory-developed materials.

As the Consortium has matured and become more complex, collaborative efforts have been undertaken. The member institutions have recognized the need to examine their dissemination functions specifically in relation to the sharing of Consortium products.

The Ocean Project illustrates the Consortium's recognition of this need. After considerable exploration and planning, the project was launched in May 1981 with a two-week workshop in Hawaii attended by 27 participants representing all of the Consortium members. It has been labeled an "integrated" activity of the Consortium; that is, one where the development of the program is a collaborative effort among agencies. The ultimate goal is curriculum materials for use by students in all Consortium countries to gain a knowledge of ocean related concepts, particularly the international and intercultural aspects.

A major part of the activity is taking place in the home locations of the various working groups. Here a team of teachers, curriculum specialists, content scholars and others are using local resources to prepare curriculum materials. The collaborative features of the project are being accomplished through periodic joint workshops, as well as shared drafts of documents, visitations, mutual criticism of draft works and by telecommunications.

The project is planned in three phases--exploratory, development and validation--and it currently is about six months into the projected two-three year development phase. Thus, activities already are underway which will affect the eventual dissemination activities conducted in each country.

After an initial exploration of the topic of dissemination at the Fifth Annual Meeting in Portland, Consortium members are planning a more indepth analysis at their next meeting in Japan. They are faced with the question, "How will we disseminate Consortium products in each of our countries?" What activities will be carried out and by whom? Are our current dissemination efforts appropriate and adequate or are new ones needed?

The framework subsequently proposed is intended to facilitate the collection and analysis of information to help each of the agencies answer these questions.

DISSEMINATION STUDIES AND DATA COLLECTION FRAMEWORKS

Several studies conducted in recent years deal with the functioning and effectiveness of dissemination efforts in the United States. Although each of them has unique aspects, the methods employed in some of these are relevant.¹

State Capacity Building Program

The methodology for a study of the State Dissemination Capacity Building Program conducted by NTS Research Corporation in 1978 is described in "A Framework for the Evaluation of the State Capacity Building Program."

In this study, information collection was structured around two overarching questions:

- o Is dissemination capacity being built?
- o Is the program having an effect?

The investigator defined dissemination capacity as consisting of service capacity plus user capacity. Service capacity is composed of contextual system characteristics and output variables in each of the study domains of leadership/management, information resources, linkages and clients.

Four sets of evaluation questions addressed the building of dissemination capacity:

1. What knowledge can be generated regarding the origins, objectives and plans of the project?
2. What knowledge can be generated concerning service capacity?
3. What knowledge can be generated concerning user capacity?
4. How good a match is there between service capacity and user capacity?

Three evaluation questions addressed the effects of the project:

1. What effects are the projects having?
2. Is dissemination capacity being institutionalized so that it can continue?
3. What effects are related to the federal role?

¹ These studies are described in Interorganizational Arrangements for Collaborative Efforts: Project Studies, NWREL, February 28, 1981.

Synthesis of Five Studies

The Far West Laboratory (Emrick & Peterson) synthesized findings across five studies in educational dissemination and change. ²

Six organizers were used in presenting the findings:

1. External sources of knowledge and information used by school staff
2. Seed money
3. Adequacy of descriptive materials for designing operational replication
4. Personnel onsite interventions
5. School staff participation and roles (teachers and administrators)
6. Clarity of mission and goals

Study of Education Service District

In a study of educational service districts (ESD) (Stephens Associates, 1979), three categories of ESDs were identified:

1. Special District ESA--a legally constituted school government sitting between the state education agency and a collection of local education agencies
2. Regionalized ESA/SEA--a regional branch of the state education agency
3. Cooperative ESA--a loose consortium of local education agencies

In looking at relevant characteristics in the functioning of these agencies, the researchers investigated:

1. The legal structure
2. Governance
3. Programs and services
4. Financial support

Information Dissemination and Exchange

The Center for the Interdisciplinary Study of Science and Technology at Northwestern University produced a paper, "Information Dissemination and Exchange for Educational Innovations," to illustrate the use of a contextual framework approach to policy making. Researchers there use the following categorical framework to group interactive features:

² Sieber Study, Rand Study, PIP Study, NDN Study and TAG Study

1. Environment--External features which may affect operation
2. Operative Conditions--Internal features which may affect operation
3. R/D&I Functions--What the system does
4. Research on R/D&I--Research about any aspect or element of the system

R&D Utilization Projects

Seven R&D Utilization Projects were supported by the National Institute of Education to add to knowledge about the design, operation and results of dissemination programs in education. A study of these efforts by Abt Associates (1979) was organized around three facets:

1. Structure and functioning of the projects
2. Steps taken by schools as they attempted to make improvements
3. Role of external agents in delivering technical assistance and information to local schools

National Diffusion Network

Findings related to needs for assistance resulting from the study of the National Diffusion Network by the NETWORK (1979) indicate five areas of dissemination activity that may need to be looked at. They are needs for:

1. Orientation
2. Moral and logistical support
3. Specific tasks
4. Management concerns
5. Information

NWREL Study of Collaborative Projects

NWREL conducted indepth interviews with staff of 26 diverse projects involving collaborative organizational arrangements during 1979-80 to determine significant elements of their effectiveness. Data collection was organized in the following manner:

1. Description
 - o Impetus for formation and maintenance
 - o Purpose
 - o Development (how and why it evolved)
2. Organization
 - o Organizational interactions (major actors)
 - o Funding (source and purpose)
 - o Strategies employed

- o Organizational arrangements
- o Technical assistance role

3. Impact

- o What constitutes impact
- o Conditions for success
- o Institutionalization

FRAMEWORK FOR ANALYSIS OF DISSEMINATION PATTERNS

Given the diversity of structures and goals of the educational systems of different nations, great diversity also can be expected in the individual dissemination activities they plan and carry out. However, the federally commissioned "Dissemination Analysis Group" (DAG) has developed a highly useful typology of dissemination activities. This framework envisions four major categories of dissemination activities as follows:

- o "Spread"--The one-way distribution of knowledge. Examples are publications and general mailings.
- o "Exchange"--The two or multi-way flow of information. Examples are conferences and site visits.
- o "Choice"--The facilitation of consideration and selection among those ideas, materials, practices and knowledge for purposes of designing improvements in practice. Examples are traveling exhibits and catalogs comparing alternatives.
- o "Implementation"--The facilitation of adoption and implementation of a promising practice. Examples are onsite consultation, technical assistance and staff development training.

These four categories produce a beginning framework for examining and designing appropriate dissemination activities. The typology clearly identifies a continuum from one-way casting out of information to intensive human interactions in support of implementation.

The framework presented for use by Pacific Circle Consortium agencies in analyzing current dissemination activities and planning new ones (see following chart) suggests three aspects of each dissemination activity be examined: target audiences, knowledge to be provided and delivery mechanisms.

The analysis process envisioned would be to formulate dissemination objectives for each of the four activities (Spread, Exchange, Choice, Implementation) which specify the target audiences, knowledge to be provided and delivery mechanisms for each. The analysis would begin by stating objectives which reflect the current dissemination activity of the agency. Then, alternative or supplemental objectives could be considered within the perspective of Consortium developed products.

FRAMEWORK FOR ANALYSIS OF DISSEMINATION PATTERNS

DISSEMINATION ACTIVITIES	OBJECTIVES		
	TARGET AUDIENCES	KNOWLEDGE TO BE PROVIDED	DELIVERY MECHANISMS
<p><u>Spread</u>--One-way distribution of knowledge</p> <p><u>Exchange</u>--Two or multiple-way flow of knowledge</p> <p><u>Choice</u>--Facilitation of consideration and selection of knowledge</p> <p><u>Implementation</u>--Facilitation of adoption and implementation</p>	<p>Who are the ultimate targets:</p> <ul style="list-style-type: none"> o Intended <u>users</u> of product? o <u>Decision makers</u> who influence or control ultimate use? <p>Who are the intermediate targets:</p> <ul style="list-style-type: none"> o <u>Conveyors</u> of knowledge to the ultimate targets? 	<p>What <u>content</u> is to be conveyed?</p> <p>What <u>emphasis</u> should the knowledge have?</p> <p>What should be the <u>extent</u> of the knowledge?</p>	<p>What <u>individuals/agencies</u> should deliver the knowledge?</p> <p>What <u>media</u> should be used to deliver the knowledge (printed, audiovisual, group training, one-on-one consultation)?</p>

Dissemination objectives should be related to an overall institutional mission and program goals. An example of an institutional mission might be to assist schools in the selection of appropriate products for installation. A program goal might be to develop and get into widespread use a specific curriculum or course.

The next step is the identification of knowledge which needs to be provided related to each goal and then the determination of how dissemination can contribute to meeting these knowledge needs. Considering the institutional mission of assisting schools in the selection process, there is a need to provide personnel in those districts with information about available new products, training in the selection process, etc.

Target Audiences

A trial use of the suggested framework resulted in the identification of three types of target audiences:

1. Potential product users
2. Decision makers who influence or control support of the institution and installation of products
3. Colleagues at agencies working in related fields

Based on the sample mission and goal noted above, the following targets might be identified.

Users = School Administrators
Teachers
College Professors and Administrators
Education Boards
Personnel of other development agencies
Community workers
Etc.

Viewed in terms of a specific program goal to develop and get into widespread use a course on the environment for secondary students, the list of target users might be reduced to:

Secondary Teachers
Secondary Administrators
Community/Environmental Groups

In identifying user targets it should be kept in mind that they really consist of two kinds: (1) the "conveyor," an intermediate or facilitating target, and (2) the "client," or ultimate user.

Decision Makers = Politicians
Department of Education Personnel
Businessmen
School Boards

Advisory Committees and Commissions
College Deans/Presidents
Etc.

Viewed in terms of the same program goal, departments of education, school boards and school superintendents might all be decision makers who would need to be influenced before diffusion or installation of the course could proceed.

Viewed in terms of institutional mission, politicians, government agency personnel and an institution's governing board are obvious decision makers.

Colleagues = People in the same field
College faculty members
Staff of other research and development institutions

This group of targets illustrates the fact that an institutional mission may be relevant to a specific dissemination objective. That is, if establishment of the institution as a leader in a particular field is an institutional goal, then relatively more effort and resources may be directed to reaching that particular target group.

Once the targets have been listed, the role each plays or the influence it exerts should be noted. For example:

As a Decision Maker, a School Superintendent -	Decides or approves the decision to install a product
As a User, a Teacher -	Needs to be convinced of the products effectiveness Needs to know how the product is used Needs to see how it fits in with his own teaching goals
As a Colleague, a Researcher -	Wants to know the development or evaluation processes utilized

Roles of various targets have implications for identifying the knowledge to communicate. It also is relevant for ranking targets or establishing the priority among targets.

For example, the decision maker targets and roles in diffusing and installing a course on the environment for secondary students could include:

- o State Superintendent of Education - Promote, or at least not oppose, its use in schools
- o Local Board of Education - Approve allocation of local resources
- o District Superintendent - Decide to make the course a part of the regular curriculum

- o Building Principal and Teachers - Propose adoption of course or influence superintendent's decision

In this case superintendents might be ranked as the top priority and members of the board of education last.

Knowledge to be Provided

The role of the target group is the main determinant of the knowledge to be provided.

If the target is a person who will be teaching the course on the environment, he or she would want to know the nature of the materials and how they are used.

If the target is the superintendent, he or she would want to know costs.

If the target is a politician, he or she would want to know what benefits the geographic area represented is receiving. The politician also would want to know what local people think of it.

Both the emphasis and the extent of the knowledge provided are important.

Effectiveness is enhanced if the proper emphasis is used. For example, knowledge provided to superintendents of small, rural schools about a community oriented course on environment will be more effective if utilization of rural aspects of the community are emphasized.

The extent of the knowledge which is provided--how detailed is it and how long does it take--is determined by a combination of factors. Among them are the role of the target, how busy he or she is and interest in the topic.

The prior level of knowledge of each target is obviously relevant. The person with little prior involvement with the institution needs more background and detail. This can be illustrated in the extreme by comparing the knowledge needs of a superintendent of a nearby school who has participated in prior face-to-face briefings to a superintendent of a district in another country where there has been no previous contact.

Delivery Mechanisms

The most effective delivery mechanisms capitalize on the existing habits of the target group; that is, determine how they regularly acquire knowledge and utilize those mechanisms as much as possible.

This involves determining what printed material they read regularly, what meetings they attend, and what individuals and agencies they seek knowledge from. Furthermore, it is important to know which of them the target has the most confidence in.

To use printed material as an example, the message is more apt to be communicated and viewed as credible if it is included in something the

target reads regularly. In the United States, vocational educators read the AVA Journal, school board members read their state association newsletter, school administrators read the Phi Delta Kappa, etc. Some are not so obvious: What do the "community leaders" in a pilot project area read?

Knowledge may be gained through an intermediary, verbally or written. For example, a communication might be mailed directly from an institution to a local superintendent or the same communication might be delivered by a state superintendent, a college faculty member, etc.

Once a list of potential mechanisms has been identified for delivering knowledge to each target, they should be considered in light of:

Efficiency/dependability

Effectiveness

Cost

Efficiency/dependability--Generally, this reflects a concern that the message transmitted is the same one received. The more direct the transmission, the more dependable it is. The more intermediaries it must go through, the less dependable.

A publication written and produced by the institution and transmitted to the target directly is the most dependable. But it also may be the least effective.

Knowledge transmitted through a human intermediary is dependent on the level of understanding of even a well intentioned conveyor and subject to his personal interests and communication abilities.

Effectiveness--This concern focuses on the question of how much attention the communication receives from the target and, ultimately, whether it has an influence on him or her. The credibility of the conveyor in the eyes of the target is very important, and this is directly related to capitalizing on existing habits of the target.

Cost--Some methods simply cost more than others. But total or unit cost may be less important than cost in relation to effectiveness. To state it in simple terms, a 25¢ communication which is effective with only 25 of 1,000 recipients is more costly than a \$2.00 communication which is effective with all 1,000 recipients.

Sample Result

Following is a hypothetical example of how the framework might be used and a sample of the result.

The head of an educational research and development agency in a foreign country might be faced with the task of deciding or recommending how to make a high school curriculum unit available to schools throughout the country. His institution has no legal authority to mandate use, but does

have a mission of assisting people in local schools install recommended curriculum, including training teachers to use the materials.

Considering Spread activities, the head of the agency might conclude, among other things, that principals have a key role in making the decision to use the materials and in training local teachers to do so.

- o They need to be aware of the materials, their basic nature and cost
- o The information is technical enough that it needs to be provided in print

A sample Spread objective thus could be, "To make principals (target audience) aware of the existence of the materials by preparing and mailing a brochure (delivery mechanism) which describes their basic nature and where further information can be obtained (knowledge to be produced)."

A sample Implementation objective could be, "To train faculty members at four colleges (target audience) to subsequently conduct summer institutes for principals on their campuses to subsequently train principals (delivery mechanism) to use the curriculum units to conduct 14 hours of instruction in energy conservation (knowledge to be provided)."