Perspectives

The Critical Role of Language and Communication in International Development Projects

Ronald Mackay and Nila Mendoza de Hopkins

In this article we look at Canada's policy regarding its role in international development and, in particular, at the essential role of language and communication in development projects. In order to discuss certain issues of language and communication as they relate to such projects, we draw on recent development literature and certain aspects of our experience with projects in Asia and Latin America.

Canada and International Development

International development is not simply about activity in the "developing world." Development projects, wherever they are located, have far-reaching effects. There are implications for everyone concerned: donor countries, beneficiaries, recipients, and the regional and world institutions that may be responsible, at least in part, for financing development projects.

The global issues in development are recognized by Canada as involving both domestic and foreign policy. The social appropriateness, the economic viability, and the ecological sustainability of any given development project concern Canadians in Canada as well as the federal government and the myriad nongovernmental organizations (NGOs) and the corporations and contractors who both establish policy concerning development projects and undertake their implementation.

In Canada, most provincial ministries of education have incorporated concepts of Canada's interrelationships with the rest of the world and the sustainability of development projects into the curriculum from kindergarten to high school. The *Environment and Development Issues and Trends* (EDIT) Series (Common Heritage Program, 1994) is an example of such an initiative. The Common Heritage Program is a Canadian NGO that produces educational materials to encourage awareness of a wide array of global issues. Such issues include soil erosion, forest exploitation, desertification, biogenetics, mass migrations, the conditions of Native peoples, health care, and women's roles in society. All of these issues represent widespread international challenges and are the targets of development projects at home and abroad.

Canada's foreign policy view of aid to international development projects has evolved over the decades. From a "charity and self-help" approach, Canada has moved to a view where empowerment and transformation play a major role (Kila, 1991). Human resource development, therefore, has become the key instrument by means of which an indigenous capacity is developed, facilitating each country's ability to address its own particular problems in the most appropriate and self-directed manner. The gradual changes in approach have come to fruition in Canada's present Overseas Development Assistance charter. This charter, a fundamental policy articulating Canada's perspective on international development aid, has four pillars:

1. Putting poverty first: the primary purpose of Canadian official development assistance is to help the poorest countries and people of the world.
2. Helping people to help themselves: Canadian development assistance aims to strengthen the ability of people and institutions in developing countries to solve their own problems in harmony with the natural environment.
3. Development priorities must prevail in setting the objectives for the aid program. As long as these priorities are met, aid objectives may take into account other foreign policy goals.
4. Partnership is the key to fostering and strengthening the links between Canada's people and institutions and those of the Third World. (Canadian International Development Agency, 1987, p. 23)

Assistance is delivered and implemented through concrete *projects* managed by NGOs, usually with partners in the recipient country, and through professional contractors operating in the corporate sector.

The Structure of Development Projects

It would be false to imagine that aid projects are somehow different from or less accountable than other kinds of projects such as construction, educational, agricultural, or social projects that might be carried out in the North (Mackay, 1993, 1994). International development projects bear the same fundamental defining characteristics as any other in that every project has a specified set of goals and objectives to be achieved according to a predetermined set of standards (the technical objectives sought after) within the constraints of limited resources reflecting finite amounts of time (deadlines) and money (budget). Moreover, clearly determined standards of accountability are applied to international development projects at the design stage, the implementation stage, and the review stage on completion of the project.

Typically, the questions asked of proposed projects are as follows:

- What will be produced?
- What will those products achieve?
- What resources must be put into the project?

- How will we know if the project has succeeded?
- What are the threats to success?
- What are the threats to sustainability?

Evidence indicates that development with clearly identified and discrete technical objectives, clearly specified time frames, and budgets identifying resources to be allocated to and used by the project has a better record of success than development plans managed by large-scale, government field bureaucracies (Chambers, 1983). However, there is much more to the success of development activities than generic expertise in project management.

Variables Affecting Development Projects

Development projects, as described above, can be conceptualized as located in sets of variables that are interrelated at various points on a number of planes (St. John & Clarke, 1991).

Any development project operates within a framework of variables. The three most fundamental of these are the existing systems and networks within which the project must function, the people associated with the project, and the work that they must produce individually and collectively in order to achieve the goals and objectives of the project (Chambers, 1983; St. John & Clarke, 1991; London 1993).

Furthermore, all projects operate in interrelated environments:

- the immediate project or institutional situation;
- regional and national contexts;
- the global environment.

In each of these contexts exist a number of key factors that will influence development projects:

- Culture (of the individuals, and larger subgroups and larger groupings);
- Politics (the dominant social policies that create the broad social ethos);
- Language (one or more vernaculars used by the local project staff as well as any additional language(s) used by the donor country staff).

The dynamics of any international development project may be thought of as the *project triangle* of technical objectives, time frames, and budget operating within the *human triangle* of people, systems, and work that in turn operate in the broader constraints and characteristics of culture, politics, and language. These dynamics may manifest themselves differently in the project, institutional, regional, national, and world environments (Figure 1). The potential for things to go wrong in such a complex system is substantial. Holliday (1990) offers some suggestions as to how the triangles of systems, people, and labor and politics, culture, and language can be made more explicit and accessible to the expatriate 'expert' using a procedure borrowed from management known as 'soft systems methodology' (Checkland, 1985).

Using examples taken from projects in Sri Lanka, Egypt, and Sudan, Holliday demonstrates how the complexities of the development context can be understood and can serve to give an appropriate shape to the project.

Excellent examples of Canadian-initiated international projects where all these factors were clearly identified and skillfully managed during execution are Francomer and Anglosea. These communications skills projects (French and English respectively) were designed and mounted in order to provide mariners with precise and specific training in ship-to-ship and ship-to-shore communication. Anglosea evolved out of the successful Francomer project developed by the Canadian Coast Guard College, and involved the cooperation of virtually all the major seafaring nations of the world, as well as those nations where inland waterways provide a major transportation system (Kelly, 1991).

The Role of Language and Communication in International Development Projects

Good communication is recognized as a crucial element in the design and successful implementation of any project (Austen & Neale, 1986; Knutson & Bitz, 1991; Holliday, 1992; Kerzner, 1994). Nevertheless, the precise role of communication and, in particular, the role of one or more of the different languages inevitably encountered in most international projects has been largely neglected (Inman, 1978). Even when Inman was conducting her survey of the role of language in international projects and corporations, pioneers in teaching languages for highly specific vocational and professional purposes were reporting their experiences in integrating second-language communication skills into industrial, technical, and scientific projects.

There are several examples of such language communication activities. Mackay (1973), for instance, described a project designed to provide an international group of specialists with a common body of language to permit them to discuss the economic, social, scientific, and technical aspects of environmental pollution when this was an emerging issue of international importance. Coutts (1974) describes how he approached the task of providing English language training for both ground and flight staff to improve the operations of a major international airline. Coleman (1977) gives an account of improving the operations of the Indonesian oil industry by incorporating second-language instruction into the technical training provided to petroleum engineers. Mackay and Cao Romero (1978) reported on the role of Spanish and English language communication in the success of a grassroots agricultural development project in the territory of Quintana Roo in southeast Mexico. Some 20 years after its initiation, the communication component of that original project still constitutes an integral part of the training of animal scientists at the National Autonomous University of Mexico, DF and at the University of Mérida in the Yucatan Peninsula of Mexico.

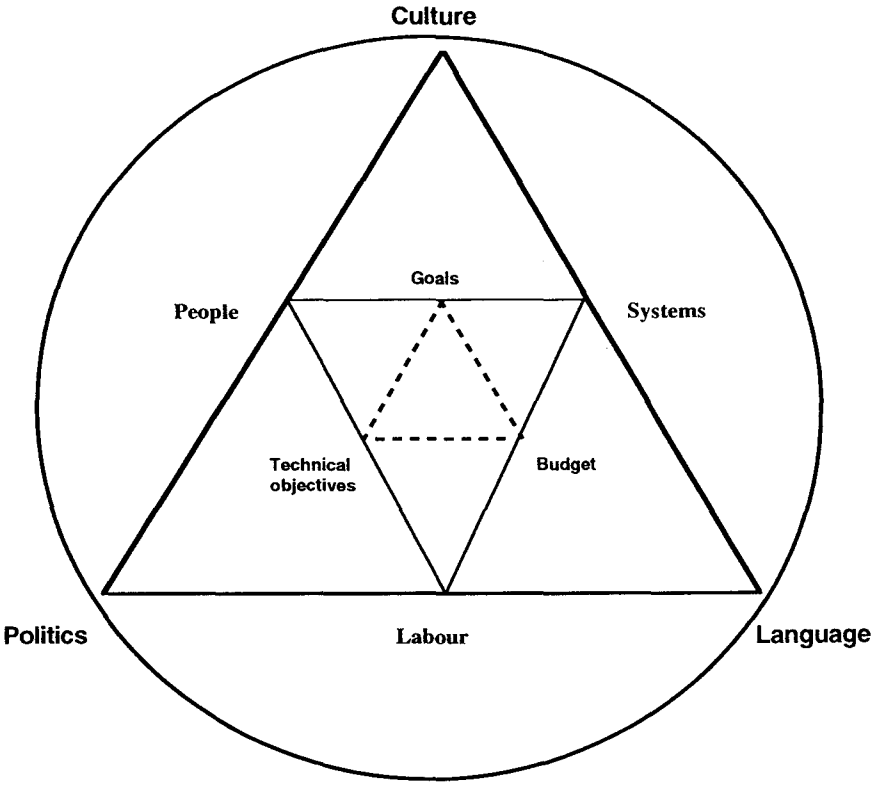

Figure 1. Projects have their own structure, but operate within sets of variables that, in turn, are constrained by overarching factors.

In the 1970s much of the second-language communication skills training grew out of and was incorporated in an integral way into international development efforts as described in these examples. However, for the following two decades, much of the special purpose second-language training, although based on needs analyses of the technician, businessman, scientist, or professional was conducted independently of the projects where these specialists were employed. It became an optional add-on. This was, in part, because language and communication training occupied a separate, often optional, place in development projects and was not conceived as being an integral part of wider aid projects (Iredale, 1991; Hilton, 1992; Turner, 1992). To a large extent this is still true. In recent discussions with project managers in Latin America in the areas of mining, oil exploitation, and agricultural development, it was evident that language and communication issues had not been considered until they caused major problems.

It is only recently, and only by a limited number of writers, that individual languages and the social realities created and maintained by them have begun to be recognized as an issue cutting across all levels of development and all types of development projects (Hilton & Webber, 1993; Holliday, 1994, 1995). This return to an integrated role for language and communication skills has been due, partly at least, to the recognition by governments that development projects funded by aid money have a greater chance of success and sustainability when communication between members of the project team is optimal (London, 1993).

Language and Communication as Crosscutting Issues

The notion of crosscutting issues is not foreign to Canadian international development projects. Implied in CIDA's principles are the crosscutting issues of human development, for example, the role of women in development; economic reform, including the alleviation of poverty; good government, including the democratic process; the environment, including issues of sustainability; and health, including issues of population. Other crosscutting issues have been identified and used to determine priorities for development projects. They include the structural adjustment of national debts made necessary by recession and economic stagnation; demographic changes relating to population growth and shrinkage due to natural and man-made disasters; change related to scientific and technological development; environmental degradation resulting from climatic change and human action; the promotion of human rights in accompaniment with economic growth; and the education of girls and women who make up only a small proportion of gross school enrollment in most developing countries (Lewin, 1993).

These substantive crosscutting issues are used by many countries, including Canada, to prioritize and focus their international aid projects. However, language and communication as such have only just begun to attract the attention of the Canadian government as a crosscutting issue that must be addressed from the early planning stages of any development project if effectiveness and efficiency are to be attained. There are, of course, some important exceptions to this generalization. In addition to the Francomer and Anglosea projects developed in the service of international maritime communication mentioned above, the highly successful Canada-China project comes to mind (Burnaby, Cumming, & Belfiore, 1986).

Language plays an essential role in the successful implementation of development projects. Vulliamy (1990) exemplifies the importance of language issues in a school planning project in Papua New Guinea; Lewin (1990) provides examples from educational projects in Malaysia and Sri Lanka; Bown (1993) discusses the value of women's literacy as a vehicle for transmitting the benefits of education to their families as well as promoting their own potential; Mackay (1994) describes the role played by a second

language in the successful transfer of technology in 16 scientific, technical, agricultural, and managerial projects in Indonesia, and illustrates an evaluation approach to promote project sustainability.

Without the appropriate specific language or languages, no project can operate effectively. *Appropriate* here refers to the language or languages of power in any given project. In many developing countries the language of power of the country may not be the mother tongue of the project staff, and the language of those contributing technical and other expertise to a project may be foreign to the host country. The demands of effective management may require senior project staff, local or foreign, to master a minority language. However, local project staff, if they are unable to access the banks of technical information that donor country staff employ to direct the technical specifications of the project because they are unfamiliar with the language, may be denied full participation in determining the scope of the project; they may be treated as passive recipients. Such a situation would contravene the partnership criterion sought after by both donors and beneficiaries that seeks to ensure that the recipients of development aid participate actively in determining the character and scope of the projects undertaken in *their interests*.

There is ample evidence that neglecting language issues endangers the success of international projects. The British Council (1993a) offers two examples to illustrate this. In one instance, the operational life of equipment in a major port was reduced by 50% due to lack of proficiency in the language in which maintenance manuals were written; the cost of appropriate language training would have amounted to a small portion of the cost of replacing the equipment. In another case, technical manuals translated into the mother tongue by a major communications company, at a cost of US$2 million, soon became redundant because of equipment upgrades: an alternative strategy involving language training would have produced significant financial savings and productivity gains.

Effective and Efficient Training in Language and Communication Skills

The "languages for specific purposes" movement (Jupp & Hodlin, 1975; Mackay & Mountford, 1978; Mackay & Palmer, 1981; Trimble, 1985; Hutchinson & Waters, 1987) has provided ample evidence that second-language teaching and learning can be delivered in a cost-effective and efficient manner (Yates, 1989; Mendoza de Hopkins, 1990; Vaughan-James, 1992). As such, this movement is proving its capacity to play a major role in the educational planning of many developing countries (Berríos Escalante, 1993; Mendoza de Hopkins, 1993). The phenomenal growth in second-language teaching (English, German, and French in particular) in Eastern Europe and the former Soviet Union republics as an instrument of economic and social

development is simply one recent example of the recognized link between language and appropriate development (British Council, 1993b).

The Importance of Language and Communication Audits in the Planning Phase of Development Projects

The success of development projects depends to a large extent on the effective transfer of appropriate technology. Such transfer, however, is not a simple exchange between technocrats at the giving and receiving ends. It is widely known that not all the development assistance provided by any donor country is successful.

> Nobody can develop a country but its own inhabitants; so foreign experts are only effective to the extent that they can transfer their know-how in the local context, and to the extent that the proposed aid fits in with felt needs and priorities in the receiving countries. *This demands intercultural understanding, communication, and training skills.* (Hofstede, 1991, p. 219, emphasis added)

It is important that a detailed language and communication audit be undertaken at the outset of any project as part of the fundamental planning phase. Such an audit describes the communication requirements of individual, key project members, and identifies language and communication requirements that, if satisfied either through training or strategic deployment of qualified human resources, will ensure that the success of the project is not jeopardized by poor, insensitive, or ineffective communication.

Language and Communication Audits

Conducting an audit of this kind involves providing a detailed description of the types of communication anticipated, or actually occurring, in a project or part of a project and the languages in which that communication will be carried out. Project staff can then be hired with the prerequisite linguistic skills or provided with the training appropriate to the roles they will play in the project.

In our experience, most linguistic and communication audits are conducted after a project is underway and often only after communication problems have begun to affect the quality of the work—even to threaten the very success of the project! An audit undertaken in an ongoing project provides a description of the communication patterns already established and the languages in which they occur. The description of actual practice resulting from the audit is compared with what project staff consider ideal for the effective and efficient operation of the project. The discrepancies between the actual and the ideal provide an opportunity for action to effect improvement.

Two brief examples provide an insight into how communication audits are conducted. The first deals with a large-scale pre-project audit and can be described only in general terms. The second deals with a small-scale audit conducted after the project was well underway. The Overseas Development Agency, the international development arm of the UK government, mounted an extensive project, or rather an open set of integrated projects, to promote appropriate development in a number of renewable resources including fisheries, forestry, animal nutrition, animal health, rice production and storage, and so forth (Mackay, 1994). Each of these projects was examined at the planning stage (the late 1980s) in order to determine how effective communication could promote project efficiency. The language needs of project staff were determined and appropriate courses of instruction made available to project staff, both Indonesian and British (Crocker, 1994).

Indonesian staff who needed, as part of their work requirements, to gain access to data banks and information retrieval systems available only in English were provided with the necessary instruction to allow them to do so effectively. Staff who were required only to interact orally with counterparts were provided with instruction (in Bahasa Indonesia and English as appropriate) that would ensure that obstacles to oral communication were largely removed.

Over the decade or so that this large-scale project has been running, much of the project work has been absorbed into the regular work pattern of the participating agencies, and many of the original expatriate project staff have been replaced by their Indonesian counterparts as planned. The language and communication instruction is still provided, largely by Indonesian instructors, in order to ensure that Indonesian project staff can continue to access or maintain existing contacts with the international information banks and specialists, thus emancipating those staff from reliance on expatriate assistance.

The second example concerns an agricultural development project in Latin America. We conducted a preliminary language audit when the project was already up and running and obstacles to communication had begun to be encountered. Expatriate senior managers, who were fluent in Spanish, had been grooming local staff to take over their positions in the near future. These senior managers were experiencing reservations about transferring final responsibility to their counterparts, but were unable to specify the exact nature of their concerns. We examined the detailed workflow of both manager and counterpart and the language(s) in which the work was conducted. At certain points in the flow there were alternatives: the work could be conducted either in Spanish or in English. At other points, however, the language could be only Spanish or only English depending on the nature of the task and the individuals who were intrinsically involved in the task and its outcomes. The field action plans, for example, had to be written in

Spanish, but the marketing plans had to be written in English because the sole market for the produce was an English-speaking country.

Over the preceding years, the senior managers had shielded their counterparts from the tasks that the latter found problematic. Typically these were reports that had to be written in English. The senior managers undertook these tasks themselves because their counterparts were unable to carry them out effectively. However, they had made no provision to provide training for their counterparts in certain language-related tasks where they had few skills. The solution implemented to address this threat to the success of marketing vulnerable agricultural produce when we carried out our audit was expensive. A bilingual marketing specialist from the parent company in Canada had to be released one week of every four in order to travel to Latin America to assist a senior manager with development of the marketing plan. Meanwhile, the Spanish-speaking marketing executive was sent to a language school in North America to improve her English. In effect, 25% of one senior manager's work time and 100% of another's was diverted from important projects as an ad hoc contingency plan to counter a threat that could have been clearly predicted and successfully addressed earlier had an adequate audit been carried out. Moreover, the executive who had been placed in a language school in North America reported dissatisfaction with a course that she perceived was not addressing her inability to write marketing plans! The solution we offered was to design, with the assistance of the Canadian marketing specialist, a course of instruction that focused directly on the mastery of the language and communication conventions associated with preparing agricultural marketing plans. The Spanish-speaking executive was brought back to her post and released five afternoons a week to undertake intensive, focused training. The marketing specialist from the Canadian office reduced his visits to Venezuela from one week per month to one week every two months and eventually to fewer than that. The development project regained 50% of its employee's time and was investing in demonstrably appropriate training at the same time. The assumption that overseas training, because it is offered in a language immersion context, is likely to produce the desired results must be carefully scrutinized. Language and communication audits, coupled with the effective design of specific purpose training, may ultimately, as in this case, provide a more efficient and effective alternative.

Conclusion

We have discussed briefly some of the characteristics of international development projects and have highlighted the role of effective communication in the successful management and operation of such projects. Compared with other variables present in projects concerned with the provision of overseas aid to developing countries (Figure 1), language and communication have

received little systematic attention. Language and communication audits can, and should be, conducted at the design stage of international development projects. Such audits can provide precise information regarding potential obstacles to effective communication within projects. Once they have been identified, potential communication difficulties can be successfully addressed by expertly designed and highly focused specific-purpose language training. One of the foremost authorities on project management asserts that "Projects are run by communications" (Kerzner, 1994, p. 284). Our profession can play a key role in ensuring that communications in international aid projects, where more than one language is invariably used, are effectively maintained by timely provision of effective and efficient language training to the appropriate project personnel.

Note

An earlier version of this article, supported by the Consejo de Desarrollo Científico y Humanistico (CONDES) de La Universidad del Zulia, Maracaibo, was presented at the First Venezuelan Conference on Canadian Studies, March 20, 1993 in Caracas. We thank Dr. Ailie Cleghorn, Concordia University, and several *TESL Canada Journal* reviewers for comments that helped to improve the article for publication.

The Authors

Ronald Mackay is a professor of Education and director of the TESL Centre, Concordia University. He works in project design, management, and evaluation in educational and land management projects. He has experience of development projects in the Canadian Arctic, Latin America, Asia, and Central and Eastern Europe.

Nila Mendoza de Hopkins is a professor of Education at La Universidad del Zulia in Maracaibo, Venezuela. She has carried out needs analyses, designed syllabi, and taught ESP for 20 years. Her research is in the area of reading and writing. She recently spent a semester at Concordia University as a visiting professor.

References

Austen, A., & Neale, R. (Eds.). (1986). *Managing construction projects.* Geneva: International Labour Office.

Berríos Escalante, G. (1993). *The professionalization of a professional association: The case of the Venezuelan Association for Teachers of Languages for Specific Purposes.* Unpublished master's thesis, TESL Centre, Concordia University.

Bown, L. (1993). Preparing the future by changing the present: Women, literacy and development. *Oxford Studies in Comparative Education, 3*(2), 109-129.

British Council. (1993a). *Sixteenth annual Dunford seminar report: Language in development projects.* Manchester, UK: Author.

British Council. (1993b). Managing change and development in eastern and central Europe. *PRODESS Colloquium: Papers of the Project Development Support Scheme.* Manchester, UK: Author.

Burnaby, B., Cumming, A., & Belfiore, M.E. (1986). *Formative evaluation report of the China/Canada language and culture program.* Toronto, ON: OISE Press.

Canadian International Development Agency. (1987). *Sharing our future, Canadian International Development Agency.* Ottawa: Minister of Supply and Services.

Chambers, R. (1983). *Rural development: Putting the last first.* Harlow, UK: Longman.

Checkland, P. (1985). Achieving a 'desirable and feasible' change: An application of soft systems methodology. *Journal of Operations Research, 36*, 821-831.
Coleman, H. (1977). Teaching English in the petroleum industry. *Petroleum English Bulletin, 1*, 10-18.
Common Heritage Program. (1994). *Environment and development issues and trends* (The EDIT Series). Ottawa: Teachers' Press.
Coutts, J. (1974). Industrial language training. *Audio-Visual Language Journal, 12*(1), 28-37
Crocker, T. (1994). Networks. *Journal for Teachers of English in Indonesia, 1*, 41-53.
Hilton, J. (1992). Foreword. In British Council (Eds.), *Fifteenth annual Dunford seminar report: Communication skills in development: the role of ELT* (pp. 1-2). Manchester, UK: British Council.
Hilton, J., & Webber, R. (1993). *Language as a cross-cutting issue.* Paper presented at the 1st international conference on language and development, Bangkok.
Hofstede, G. (1991). *Cultures and organizations: Software of the mind.* Maidenhead, UK: McGraw-Hill.
Holliday, A.R. (1990). A role for soft systems methodology in English language training projects. *System, 18*(1), 77-84.
Holliday, A.R. (1994). *Appropriate methodology and social context.* Cambridge: Cambridge University Press.
Holliday, A.R. (1995). Handing over the project: An exercise in restraint. *System, 23*(1), 57-68.
Hutchinson, T., & Waters, A. (1987). *English for specific purposes.* Cambridge; Cambridge University Press.
Inman, M. (1978). *English as a second/foreign language, and the US multinational corporation.* Washington, DC: Centre for Applied Linguistics.
Iredale, R. (1991). The economic benefits of English language teaching. In British Council (Eds.), *Fourteenth annual Dunford seminar report: The social and economic impact of ELT in development (pp. 8-10). Manchester, UK: British Council.*
Jupp, T., & Hodlin, S. (1975). *Industrial English.* London: Heinemann.
Kelly, J. (1991). *Languages for specific purposes: Marine communication.* Paper presented at the TESL Centre, Concordia University, Montreal.
Kerzner, H. (1994). *Project management: A systems approach to planning, scheduling, and controlling.* New York: Van Nostrand Reinhold.
Kila, R.J. (1991). *Canadian non-formal development education: A typology of educational strategies and their implementation.* Guelph, ON: Guelph University.
Knutson, J., & Bitz, I. (1991). *Project management: How to manage successful projects.* New York: AMACOM.
Lewin, K. (1990). Research design in retrospect: Malaysia and Sri Lanka. In G. Vulliamy, K. Lewin, & D. Stephens (Eds.), *Doing educational research in developing countries* (pp. 46-67). London, UK: Falmer.
Lewin, K. (1993). Defining the education and development agenda: Six key issues. *Oxford Studies in Comparative Education, 3*(2), 15-46.
London, N. (1993). Why education projects in developing countries fail. *International Journal of Educational Development, 13*(3). 265-275.
Mackay, R. (1973). English for specific purposes: English and the environment. *IUT Bulletin Pedagogique, 2*, 2-9. Paris.
Mackay, R. (1993). Programme evaluation as a management tool for both accountability and improvement. *Newsletter on ELT Management.* (Available from [IATEFL Management Special Interest Group, 3 Kingsdown Chambers, Kingsdown Park, Whitstable, Kent, UK CT5 2DJ])
Mackay, R. (1994). Undertaking ESL programme review for accountability and improvement. *English Language Teaching Journal. 48*(2)2, 142-9.

Mackay, R., & Cao Romero, L. (1978). English in the service of international food production: A project in English for specific purposes. *Mextesol Journal*, 2(3), 28-37.
Mackay, R. & Mountford, A. (1978). *English for specific purposes, A case study approach.* London: Longman.
Mackay, R., & Palmer, J. (1981). *Languages for specific purposes: Program design and evaluation.* Rowley, MA: Newbury House.
Mendoza de Hopkins, N. (1990). *English for specific purposes: Pedagogical sciences.* Maracaibo, Venezuela: Universidad del Zulia.
Mendoza de Hopkins, N. (1993). *Second language policies and practices in Venezuelan universities.* Montreal, PQ: Concordia University, TESL Centre.
St. John, M-J., & Clarke, D. (1991). Communication skills projects. In British Council (Eds.), *Fourteenth annual Dunford seminar report: The social and economic impact of ELT in development* (pp. 15-18). Manchester, UK: British Council.
Trimble, L. (1985). *English for science and technology.* Cambridge: Cambridge University Press.
Turner, J.D. (1992). The value of English in development. In British Council (Eds.), *Fifteenth annual Dunford seminar report: Communication skills in development: The role of ELT* (pp. 9-15). Manchester, UK: British Council.
Vaughan-James, C. (1992). *Business studies.* London: Prentice-Hall.
Vulliamy, G. (1990). Planning case-study fieldwork in schools in Papua New Guinea. In G. Vulliamy, K. Lewin, & D. Stephens (Eds.), *Doing educational research in developing countries* (pp. 29-45). London: Falmer.
Yates, C. (1989). *Economics.* London, UK: Cassell.