

Réal G. Boulianne,
Cynthia B. Weston
McGill University

Faculty and Curriculum Development:

A McGill project in Ecuador

Abstract

The authors spent some thirty weeks at the Universidad de Guayaquil, Ecuador, between 1983 and 1985. The project, sponsored by the Canadian International Development Agency, was aimed at improving university teaching and initiating curriculum reform. Over the three years, seven professional development courses were offered to professors in education, medicine, engineering, and architecture. The frameworks of two centres to improve university teaching were established. An extensive survey evaluating the curriculum of the Facultad de Filosofía, Letras, y Ciencias de la Educación (Faculty of Education) was prepared. Based on these results, some specific recommendations for curriculum change were made and some initial steps were taken to get the process underway.

Exchanges among academic institutions can be professionally rewarding and culturally enriching, particularly when they take place over an extended period of time. The exchange between McGill University and the University of Guayaquil, Ecuador extended over a three year period, from 1983 to 1985. The McGill team, headed by the authors, spent approximately 30 weeks on the site during this three year period. The experience was interesting, challenging, and rewarding.

Ecuador

General description

Ecuador is a small country (283,000 sq. km.) which straddles the equator on the west coast of South America (ecuador means equator in Spanish) and is divided from East to West into four very distinct geographic regions: the Amazon basin (Oriente), the Andean highlands (Sierra), the coastal lowlands (Costa), and the Galapagos Islands in the Pacific, approximately 600 miles from the coast. Its 8,945,000 inhabitants are divided among Indians (40%), Mestizos, mixed Indian and European (40%), Europeans (10%), and Blacks and Asiatics (10%). Virtually all the population is located either in the Costa (51%) or in the Sierra (46%).

Only 41% of the population of Ecuador is urban and the largest concentration is in the two major cities of Guayaquil and Quito. Guayaquil, with a population of approximately 1,500,000 is the largest city, the most important port, and the main commercial and industrial centre of Ecuador. Quito, the capital, with a population over 800,000, is located high in the Andes and was also the Northern capital of the ancient Inca Empire. There are four other urban centres with populations over 100,000, the largest of these being Cuenca (approximately 150,000) also in the Andes. Seven other centres have between 50,000 and 100,000 people.

Since 1979 Ecuador has had a democratically elected government, and there have been two constitutional and peaceful transfers of political power since that time. Six years may not be considered a democratic tradition, but perhaps more a democratic trend.

Approximately 47% of the active labor force is engaged in agriculture, and, until the exploitation of oil in the Amazon in 1972, Ecuador's main source of wealth came from agriculture and from the sea. Other than oil, the major exports are sea food (particularly shrimp), bananas, cacao, coffee, and sugar. Agriculture is still underdeveloped and 72% of the land is covered by forests.

Today Ecuador suffers the economic plights of all Latin America: high foreign debt, inflation, and unemployment.

Education

Economic and social problems have had a decisive impact on education in general. Approximately 15% of the population over ten years old is illiterate, and less than 50% of the children between the ages of six and fifteen attend school.

Institutions of higher education are underfunded and some are badly overcrowded due to political decisions to eliminate tuition and entrance requirements beyond completion of secondary school. Furthermore, professors are poorly paid, forcing virtually all of them to hold a second full-time job.

The University of Guayaquil has a population of approximately 60,000 students. Its Faculty of Education alone has some 10,000 students. The university suffers from all the problems mentioned above, particularly since it is one of those which has eliminated tuition and entrance requirements. The result has been a rapid growth in enrollment with which the university infrastructure and available resources are ill equipped to cope. Considering these constraints, this project had to centre on realistic and very limited objectives.

Project Planning

Contacts between Ecuador and McGill International started in 1980. However, it was the visit of the Director of the Department of University Planning for the University of Guayaquil to McGill in April 1982 with a specific request for assistance in university teaching and curriculum development which initiated the current project.

The first six week phase in Ecuador (July-August 1983) consisted of orientation, needs assessment, and specific planning for subsequent years. In addition, some initial steps were taken towards the stated objectives of improving university teaching and initiating curriculum reform by offering a course in instructional design to professors of their Faculty of Education and by gathering some preliminary data on that faculty's curriculum.

A Master Plan was prepared that summer and amended over the following two years. Faculty development was to concentrate first on the Faculty of Education by providing a series of courses for a selected number of professors. Similar courses were to be offered later to other units of the university. Secondly, the improvement of university teaching was to be supported by the establishment of a university-wide centre for teaching and learning services. Finally, the curriculum development project was to centre only on the Faculty of Education.

Faculty Development

Courses.

Some aspects of faculty development were relatively straightforward, if time consuming. Professors from Education, Architecture, and Engineering and Medicine were given a total of

seven courses aimed at improving course development and course planning, educational theories and practices, curriculum theory, research design, and second language teaching. These courses were designed to expand professors' knowledge base, and to provide practical skills and applications of that knowledge. All courses were given in workshop form to allow professors to apply these various skills using the context of their own institution and academic discipline.

Although offering courses was a relatively straightforward operation it was by no means without difficulties. First, the instructors had to adapt to the milieu and level of the professors. This could be a delicate matter requiring diplomacy since it involved dealing with university colleagues and not with conventional students. The second problem was the lack of textbooks and other materials readily available in Spanish in Ecuador. Some textbooks were obtained from other Latin American countries, but at considerable expenditure of time, effort, and money. The third difficulty, linked to the other two, was the preparation of adequate and relevant practical material in Spanish, materials and assignments for workshops that coincided with existing realities and coped with lack of resources. The preparation and teaching of these courses was challenging, if not inordinately complex.

Centres for improving university teaching

In the third year a considerable amount of time was devoted to the planning and development of structures for two centres for the improvement of university teaching: a university-wide institute responsible to the Vice-Rector (Academic), and a centre within the Faculty of Education responsible to the dean of that faculty. Issues such as the mandate of the centres, their orientation, and human and physical resources had to be considered within the context and the reality of the University. These centres will have to carry on the professional development work begun in part by this C.I.D.A. project.

The Institute for Formation and Improvement of University Professors has been functioning informally for many years by offering pertinent professional development courses to interested professors. Usually these courses were given by professors brought in from foreign institutions. As demands for courses related to updating curriculum content and modern teaching techniques increased and evidence of deficits in instructional competence accrued, the need for an institutional centre dedicated to on-going professional development became clear. Therefore, with full administrative support the Institute was formed. Its mandate is the promotion of change and innovation in the teaching-learning process, stimulation of overall professional development of the professoriate, which will include updating

within their areas of academic specialization, modernizing methods for planning, instruction and evaluation, and developing research skills. A long term plan has been elaborated to achieve these ambitious goals in a series of stages.

The planning for the first stage, which will begin implementation this year, demonstrates the desire of the administration to take immediate, and some might say, drastic action. After the selection and training of professors to staff the Institute a curriculum of 16 courses will be offered. This curriculum is directed towards development of instructional and research skills; e.g., research design, statistics, curriculum planning, instructional design, educational evaluation, techniques for university teaching, learning techniques, planning for higher education. Faculty members may elect to take any individual course or they may enroll in a program which will award a Certificate in University Teaching. The entire program includes a package of courses and the completion of a special project, for a total of 30 credits taken over a period of approximately two years. The administration is trying to encourage faculty members to take the Certificate by offering a salary increase upon successful completion. Considering the financial problems of the University and professors, this reward system (something which is usually absent and sorely needed in North American universities) should provide substantial motivation for professors to become involved in teaching improvement and research efforts. New professors will be required to complete the Certificate before receiving a permanent appointment. Future plans for the Institute include the gradual addition of consulting services for individual faculty members to diagnose and deal with specific instructional problems.

A Centre of Educational Sciences has also been developed within the Faculty of Education. Its goals are similar to those of the Institute, however the program is less structured. Workshops, seminars and courses have been and will continue to be offered in response to requests from members of the Faculty, principals and teachers in secondary schools, and other members of the University community.

The redundancy of these two organizations is recognized by the University but was unavoidable due to various political factors. Regardless of problems which may arise during implementation, the University is demonstrating a serious commitment to the development and improvement of teaching and research within the institution.

This phase of faculty development was both more complex and more challenging than offering courses since it required functioning directly within the administrative structure of the university.

Curriculum development

Curriculum development with the Faculty of Education became a most challenging and interesting aspect of the project. It was obvious from the beginning that it would be inappropriate to attempt a complete reform of the curriculum given the time and resources available. Even with more time and resources, curriculum revision is so complex a process and is linked so intimately with historical development, with social, political, and economic conditions, and with well established institutional practices, that consultants, particularly those coming from another culture, must tread very carefully. Therefore, the emphasis was to provide an objective and systematic analysis of the curriculum, highlighting its major strengths and weaknesses, to make some very basic recommendations, and to start to implement some of these with the approval and participation of the Faculty of Education. Furthermore, since all the work was done with a faculty team from Education, the whole process was to become a model the faculty could follow to pursue curriculum reforms further.

The curriculum

The Faculty of Education grants the degree of "Licenciado" after completion of a five-year programme following secondary school. The programme has three components that run parallel to one another over the five years. The first is academic specialization in one of the following disciplines or combination of disciplines: philosophy, Spanish language and literature, history and geography, foreign languages, commerce and administration (accounting), chemistry and biology, maths and physics. The second component focuses on general culture, and the third on pedagogical training. General culture and pedagogy courses are common to all students. There are fourteen courses in pedagogy, all are compulsory and all are taken in the same sequence over the five year period (see Table 1). The "Licenciado" allows the recipients to teach in secondary schools or in university. In fact, the majority of the professors in the Faculty of Education hold only the "Licenciado" degree.

Needs assessment

During the initial phase of the project in Summer 1983, a small team from the Faculty of Education met with one of the McGill consultants to determine the parameters and the process of the proposed curriculum reform project. The participants from Education expressed in very general terms some of the dissatisfaction with the existing curriculum, and more specifically, if intuitively, some of its perceived strengths and weaknesses. After further discussions, including a review of basic principles of

curriculum, an examination of the current curriculum in comparison to other models, and the analysis of the course objectives and content of the professional education courses, it was agreed to proceed with an empirical study of the Faculty of Education's curriculum. It was agreed further that this study would take the form of a survey of the graduates of the Faculty of Education. This survey was to request secondary school teachers to express their perception of the pertinence and effectiveness of their training at the Faculty of Education. This was a novel approach, certainly in Ecuador, to curriculum analysis - an assessment by the graduates of the system.

| Table 1 | |
|--|---|
| Education courses in the Faculty of Education | |
| Year | Courses |
| I | General Pedagogy General Sociology |
| II | General Psychology General Didactics |
| III | Pedagogical Problems in Secondary Education Special Didactics Developmental and Adolescent Psychology Audio Visual Education |
| IV | Evaluation and Statistics School Legislation Psycho-Pedagogy Orientation to Student Teaching |
| V | Methods and Techniques of Research History of Education |

Curriculum survey

The survey questionnaire was based on the objectives and content of the fourteen professional education courses of the Faculty of Education. These courses were selected because they are the common and compulsory core of the curriculum, and the ones concerned most directly with the professional training of teachers, regardless of their area of academic specialization. The Education team agreed to test and validate the questionnaire, and to approve its final version. Furthermore, it agreed to administer the questionnaire to secondary school teachers in the Guayaquil area.

Purpose. The object of the questionnaire was to obtain, from practising secondary school teachers who had graduated from the Faculty of Education, first their perception of the relevance of the curriculum to their current task as teachers, and second, of the effectiveness of the preparation they received to operationalize the knowledge and skills taught.

Development. The first draft of the questionnaire was prepared in Montreal during the Fall-Winter 1983-1984 by the authors. A list of some 112 specific operations was prepared from those documents, and based on a study of the literature on teacher competencies, these operational items were organized into a dozen categories.

This initial draft was reviewed in Guayaquil during the summer, 1984, with one or more professors responsible for teaching each of the fourteen courses. The operations representing the objectives and content of the course were discussed and these items were then revised so that they represented accurately what was actually taught.

After extensive field testing, the final version of the questionnaire contained seven demographic items, five open-ended questions and 46 operational items divided into three broad categories: instructional process, theories and foundations, and other professional attitudes and activities.

The main part of the questionnaire asked teachers to give their opinions on how pertinent to their work the content of the curriculum was and how well the Faculty had prepared them to perform these various operations. For example, they were asked to evaluate the importance and preparation of such operations as: formulate learning objectives, develop tests based on objectives and content, identify students with problems and obtain adequate help for them.

The open-ended questions sought broader and more personal comments regarding, for example, the most outstanding aspects of studies in the Faculty of Education, the weakest areas of studies,

lacunae in the programme, and factors which impeded a better preparation.

Administration. The Faculty team undertook to select as large, representative, and balanced a sample as possible from the graduates of Education who were teaching in the Guayaquil area. The sampling took into consideration both public and private schools at various socio-economic levels.

The team was briefed on how to administer the questionnaire. There were 250 questionnaires distributed by hand in fourteen schools. Of these 207 were collected and 204 were usable.

Results. The results of the questionnaire focused on five major factors. The fact that all of the forty-six items were given a high rating on the five point Importance Scale in fact validated the existing curriculum. All the topics taught currently in the Faculty of Education were seen as important by the secondary school teachers. Furthermore, the teachers did not identify any serious gaps in content. This was supported also by the responses to the open-ended questions.

Second, it was indicated that the areas of academic specialization, theories and foundations, and interpersonal skills were taught better than those concerned with the practical applications of the teaching-learning process (instructional planning, preparation in specific teaching strategies, and practice teaching).

Third, there was a significant difference between the importance of the curriculum items and the actual preparation students received at the university to prepare them for their professional role. Although discrepancies between preparation and practice are not unusual in professional programmes, the significant gap which exists here between these factors warrants serious attention.

Fourth, there seemed to be a substantial amount of redundancy in the curriculum. Each of the forty-six operational items were traced back to the course or courses of origin. It was found that twenty-eight are taught only in one course, thirteen are taught in two courses, four are taught in three courses, and one is taught in four courses. Overlap in itself may not be necessarily bad if it is used consciously to reinforce specific concepts or skills or to present the same material at a higher conceptual level at a later stage in the programme. However, this was not the case. The interviews with professors teaching these courses confirmed that operational items were included in the courses without knowledge or consideration that these might appear elsewhere in the curriculum.

Finally, of those factors that the teachers felt impeded their preparation, inadequate teaching by faculty (competence and attitude of professors), and physical resources (libraries, laboratories, classroom space) were cited as the most critical. Interestingly, the actual structure of the curriculum, considered rigid by North American standards, was not indicated as a major impediment.

Conclusions. Since it could be said that the actual content of the curriculum was, in fact, validated by the questionnaire, and that its structure was not questioned, it did not seem necessary to consider changes in structure and content but rather to concentrate on those specific areas of weakness identified by the questionnaire. More emphasis should be placed on the actual methods and techniques of teaching and on the actual application of these in the practice teaching component.

Also, those factors external to the actual curriculum that have an important bearing on the quality of professional preparation have to be addressed. The quality of teaching is one of these. Professors should be more up to date in their knowledge of content and in their application of teaching methods. They should take more care with class preparation, have more consideration for student achievement, and refrain from undue absenteeism.

Finally, although political activities on campus, strikes and other work stoppages, and politically influenced professorial appointments are not specifically curriculum issues, all hinder effective teaching and professional preparation.

Recommendations to the Faculty of Education

Making recommendations based on a study such as this one can be difficult. The application of some recommendations could depend on social, economic, and political issues beyond the competence and control of those trying to implement change, and might even run counter to well established ideological and political university policies. Therefore, recommendations beyond the ability of the Faculty to implement readily were seen as counter-productive. It seemed more realistic and profitable to focus on a few critical issues that could be addressed by the Faculty, taking into account its current situation and resources.

Since neither the content nor the structure of the curriculum were perceived as weaknesses by the secondary teachers, it seemed pointless to engage that issue. Changes in curriculum structure can lead to administrative changes, and sometimes even to new philosophical orientations. Such changes often require a great deal of energy to implement and do not necessarily address

the critical issues. Administrative and structural changes are used sometimes to create the illusion of reform. Activity is often mistaken for progress.

The central issue here was not really the curriculum itself but the emphasis and the implementation of the curriculum. It was, specifically, the process of the professional training received that was questioned and criticized. The problems of effective teacher preparation centered on the lack of emphasis on the instructional process itself and on practice teaching, the competence and attitudes of the professors, the physical resources of the university, and political activities.

Therefore, only two recommendations were made in the report presented to the Faculty of Education in April 1985. The first was to establish a curriculum committee for the Faculty. Its task would be to study this report, decide on appropriate areas requiring further study, and set priorities addressing those weaknesses seen to be most critical. The committee could work on making changes to stress the instructional process and the practice teaching dimensions of the curriculum and to try to minimize the overlap and redundancy in the content of the fourteen education courses.

Since professor attitude and competence is critical to the application of any change, the second suggestion stressed continuing professional development of faculty. Professors need to upgrade their own knowledge and skills in order to apply the curriculum more effectively. Well planned and continual professional development activities could help with this particular situation.

Implementation of some recommendations

Perhaps the most important aspect of curriculum reform is to involve faculty members directly in the process, and to work with them closely to develop ways and means to achieve limited objectives leading to substantial improvement. Since the improvement of the actual courses themselves was seen as an appropriate place to start, a series of workshops on what was essentially course alignment and course improvement were conducted in June 1985. These three-day workshops stressed the instructional process dimensions of the various courses and practical applications where possible and desirable. Furthermore, the workshops themselves directly involved the professors in making specific and realistic changes, and became a model for them to follow when continuing the process of course reform.

Summary of the project

The project ultimately centred on two major objectives; improving university teaching, and curriculum reform in the Faculty of Education. Immediate action was taken to improve teaching by mounting a series of courses in learning theories, curriculum development, instructional design, research design, and second language teaching. Professors from Education, Architecture, Engineering and Medicine participated in these courses.

However, the most important and, it is hoped, the most lasting activity to improve university teaching was the establishment of two centres for teaching improvement services; one university-wide and another for the Faculty of Education. These centres are to continue to pursue professional development goals by producing courses, seminars, and workshops aimed at improving teaching.

The objective concerning curriculum reform in the Faculty of Education was met, in part, by the analysis of the curriculum, by the formulation of realistic recommendations based on the results of the questionnaire, and by the workshops on course alignment and course improvements. Furthermore, the various courses offered over a period of three years have made a start toward addressing one of the major concerns of the Faculty. This need was confirmed by the curriculum survey, upgrading the course content and teaching methods of the professors. Granted, courses were offered to a very limited number of professors, but a start has been made on professional development of faculty, and what is also important, Faculty members have been able to observe a model and a method of professional development over a three-year period. The model of workshops on course improvement, the model of professional development courses, and the establishment of a centre for teaching and learning should provide the Faculty of Education with an initial infrastructure with which to continue the process.

This project was supported by a grant from the Canadian International Development Agency.

NOTES

1. Information about Ecuador has been selected from: **The 1983 South American Handbook**, Bath, England, Trade and Travel Publications, 1982, 1, 395 p.

2. Information about higher education in Ecuador has been selected from: Mercedes A. de Hernandez, "Notas sobre la Universidad Ecuatoriana", in **Revista de la Universidad de Guayaquil**, no. 2 (45), Mayo-Agosto, 1981, pp. 149-183.
3. Réal G. Boulianne and Cynthia B. Weston (co-authors), **Análisis de la Relación entre la Preparación Profesional y la Práctica Docente: Resumen de Resultados de una Encuesta de Egresados de la Facultad de Filosofía, Letras y Ciencias de la Educación, Universidad de Guayaquil, Ecuador**, Montréal, Canada, and Guayaquil, Ecuador, March 1985, 128pp.