A small-scale, short-term institution strengthening project between the College of the Arts, Science, and Technology (CAST) in Jamaica and the University of Minnesota College of Home Economics focused on the improvement of vocational teacher education in Jamaica. CAST's technical teacher education program currently prepares teachers in the areas of business studies, secretarial studies, home economics, construction technology, electrical technology, and mechanical technology. A partnership between CAST and the University of Minnesota has provided CAST with technical assistance in the home economics area and opportunities for educators from both institutions to study at the other's program. Personnel involved in the partnership have been given opportunities to develop curriculum and teaching materials for cultures different from their own, improve services to international students at their own institution, and develop research projects. (CB)
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Strengthening Vocational Teacher Education in Jamaica:
An Example of Incremental, Institution Development

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The building of institutions of higher education in lesser developed countries (LDC) has tended to focus on developing capacities in the areas of medicine, agriculture, and management, and to a lesser extent in teacher education, and still less in vocational teacher education. Private foundations and the governments of the United States, Great Britain, and France spent billions of dollars from 1950 through the 1970's on institution building (Coleman, 1984). These activities typically included scholarships for the future professors who studied in more developed countries, salaries for expatriate professors who provided leadership and support for the budding institutions, library facilities, and teaching and research facilities and materials. Generally, the intent of these large and lengthy projects was to develop a critical mass of indigenous scholars who would provide leadership for the institutions being built.

This paper describes a small-scale, short-term, institution strengthening project between the College of Arts, Science, and Technology (CAST) in Jamaica and a university in the United States. The focus of the project was the strengthening of vocational teacher education.

Before describing CAST, two basic assumptions about educational development should be acknowledged. First, where a competent faculty exists, the members of that faculty know what is best for their country; and second, cultural invasion should be minimized to maintain the integrity of the culture. Balancing change stimulated by expatriate professors with the sovereignty of the host faculty is, indeed, delicate. The author, a professor at the University of Minnesota in the United States, participated in small ways in the planning and implementing one of the baccalaureate degrees described herein, and therefore brings a perspective of the more developed world to the discussion of institution development.
This description of CAST draws heavily from Christian's (1985) work. CAST is the only technical, tertiary educational institution in Jamaica, and it offers programs in engineering, commerce, building construction, science, institutional management and food science, computer studies, and technical teacher education. It began in 1958 and has grown to a student body of 3,500 students. By 1982, 136 students were expatriate, indicating that the institution had become a regional college for the Caribbean. CAST being a regional institution is one of many indicators of the trend in the Caribbean to regionalize education. As Christian notes, training at CAST is usually cheaper and more relevant to students in the region than training in the United States and Canada.

In its 30-year history, CAST has had 12 linkages with international institutions and agencies such as the World Bank, the United Nations Educational, Scientific, and Cultural Organization, the United States Agency for International Development, and the Canadian International Development Agency. Memoranda of agreements with other academic institutions have included Hocking Technical College of Great Britain, and Southern Illinois University, Iowa State University, and the University of Minnesota in the United States. There have been less formalized linkages with other academic institutions. CAST has a notable record of forging partnerships and acquiring resources to enhance its capacity to provide for the technical education needs of Jamaica.

The technical teacher education program that began in 1970 prepares teachers in areas of business studies, secretarial studies, home economics, construction technology, electrical technology, and mechanical technology. These teachers teach pre-vocational courses, vocational courses, and general technical education courses in the 143 secondary level schools in the country. In the eight technical high schools, the vocational training is more intensive. The country depends on CAST for the preparation of teachers for this area, although there are six other teacher colleges in Jamaica which prepare teachers in other areas. All teacher preparation is governed by the Joint Board...
of Teacher Education which is under the auspices of the School of Education, University of West Indies, and it is empowered by the Ministries of Education in Jamaica, Belize, and the Bahamas. Originally, CAST granted only certificates and diplomas. In 1982, the Government of Jamaica gave permission to develop a Bachelor of Education (B.Ed.) in Business.

Description of the Bachelor of Education in Business

The B.Ed. in Business degree—which is now in place at CAST—was conceptualized to build on the CAST diploma, or its equivalent, which is a three-year program. The additional work was to be equivalent to the fourth year in traditional baccalaureate programs and would be completed during three summer terms and week-end seminars that would meet during the regular school year. Entrance requirements include a diploma in the area of specialization (secretarial or business studies) and two years of teaching experience. Students are admitted by cohorts, moving through the courses and seminars as a group. Cohort admissions were made for the summers of 1982, 1984, 1986, and 1987. The first graduates received their degrees in March of 1986.

While the baccalaureate degree in business was being implemented, the possibility of developing a second degree in home economics was also being considered. Subsequently, it was decided that a degree program in industrial education would be developed. Since the author has participated in the development of the B.Ed. in Home Economics, that degree will be described in greater detail.

Description of the B.Ed. in Home Economics Degree

The rationale for developing the bachelor's degree in home economics was based upon the fact that a significant number of graduates of the home economics program at CAST had completed degree programs in other countries, but with the devaluations of the Jamaican dollar in the 1980's, study abroad was feasible for only a very few. Consequently, home economists either chose other degree options which were not
directly related to their work (for example, degrees at the University of the West Indies) or had no other formal, professional development opportunities. Thus, a degree program was considered to be urgent (Christian, 1985).

The aim of the Home Economics Section at CAST is to prepare teachers to teach occupational skills such as catering, food preservation, and garment construction and to teach homemaking skills. Only teachers who have had their pre-service preparation at CAST are qualified to teach in the technical high schools where the home economics curricular emphasis is on income generation and employment. These teachers can also teach in the other secondary schools where more emphasis in home economics might be on homemaking.

Forming a Partnership

At the time CAST was considering the possibility of developing the B.Ed. degree in Home Economics, the College of Home Economics at the University of Minnesota had a contract with the United States Agency of International Development to provide technical assistance in the areas of home economics and social work to agencies in Jamaica requesting such help. A partnership was formed, and a memorandum of agreement was signed by the President of CAST and the Dean of the College of Home Economics at the University of Minnesota.

During the planning period for the degree, consultation regarding the content of the fourth-year equivalent took place among persons from these institutions. University of Minnesota professors are helping to develop the syllabi for the courses that constitute the degree program and to team-teach those courses with professors at CAST the first time they are offered. The head of the Home Economics Section at CAST is currently attending the University of Minnesota to earn a Master of Arts degree in Home Economics Education, and a professor from the University of Minnesota is a member of the advisory counsel formed to give advice to the home economics program at CAST.

Many characteristics of the large and lengthy projects referred to earlier are evident in
this smaller project. In addition, the partnership between two educational units and the individuals within them reaps the fruit of continuity.

The Degree

No change was made in the diploma course requirements because The Joint Board of Teacher Education regulates those syllabi to which CAST and the teacher colleges must adhere. The business education program model and admission requirements were adopted for the home economics program. The courses which were added for the degree were of three types: general education (such as sociology and economics), pedagogy (such as curriculum development and administration), and subject matter content (such as apparel production and child development). The pedagogy courses are common to both the business education and home economics programs. The first admission of a cohort was during the summer of 1986. Thirty-three persons were admitted and began their first of three summer sessions.

Advantages of Bachelor Degrees Being Offered in Jamaica

The degree work CAST is offering has the potential to be more culturally relevant for students in the region than course work offered in more developed countries. For example, educational systems in the Commonwealth countries are typically more centralized, with curricular decisions being made by ministries of education rather than teachers or curriculum specialists at the local school level, which is more characteristic of schools in the United States. The same knowledge about curriculum has a different value in these two settings. Likewise, some subject matter knowledge (e.g. aspects of family relationships and marketing) is also culturally bound. Degrees developed and delivered at CAST can provide content knowledge which is more applicable in Jamaica and the larger Caribbean community.

Many more teachers are provided access to continued professional development when the degree program is offered in an economy that is consistent with their ability
to pay and that is geographically near them. The continued professional development would also afford professional, economic, and social mobility for them.

To the extent that any society is enriched by an expanded capacity to provide formal education, the Caribbean countries benefit from having professors in the Department of Technical Teacher Education who have improved their capabilities and are in turn able to extend schooling opportunities for technical teachers. These faculty members not only contribute directly to the students in the baccalaureate programs, but they can serve as valuable resources to CAST, the ministries of education in the Caribbean, secondary and technical high schools, and businesses in the private sector. There is also the possibility that they can provide models for teacher education that is appropriate for other LDC's and lessen the general dependency on models from more developed countries. To be sure, this latter assertion is untested and would be difficult to measure.

Fry (198) enumerates several other problems of overseas education that are avoided by CAST providing baccalaureate degrees. The cost of students studying abroad can be a substantial drain on a country's foreign exchange. A country loses the talent and contribution of individuals—in this case teachers—if they are absent from their posts for extended periods while they study. Also, students are likely to increase their appreciation for and reliance on consumer goods while studying in more developed countries. Some will migrate as a result of studying abroad, and others will face cultural collision when they return home.

A final advantage of students receiving degrees at CAST is related to both economic costs and time, as noted above. Very often, when international students who have earned a diploma attend school in a more developed country, they are faced with the fact that much of their completed work is not counted toward a degree at the college or university in the host country. Reasons for the unwillingness of colleges and universities in more developed countries to count work completed include the following. 1) college and university officials lack information about the former institution and course content; 2) courses in the two institutions are not structured similarly so that
courses do not appear to be equivalent; and 3) increased specialization in college curricula in the more developed countries results in courses having multiple prerequisites which were not available in the country of origin. The result is that students completing a three-year diploma may receive credit for only a fraction of their work and face two to four years of schooling to complete a baccalaureate degree.

Benefits of the Partnership for Professors in More Developed Countries

There are three important advantages enumerated here for faculty from more developed countries to participating in an institutional partnership. First, helping to develop curriculum and teaching in an institution in another culture provides an important opportunity for professors to examine the assumptions underlying their own work and the work of their counterparts in the host country. Concepts, generalizations, and principles which seem "universal" are found to have cultural biases. For example, when one asks, "Which knowledge is most valuable?" one finds that the answer is, to some extent, culture-specific. This opportunity to examine assumptions underlying one's work is an under-utilized opportunity for renewal for professors who have been in their posts for some time.

Second, upon return to their posts in their own universities, these professors can improve services to international students. The capacity to empathize with the cultural adaptation students must make could be increased. Ability to make instruction more relevant might be improved. The transition of students from a type of institution different from one's own can be made smoother in a couple of ways. by explaining unfamiliar expectations of the host institution to the students and by explaining to professors and registrars in one's own institution the conditions of study and achievements of students in institutions in their own countries of origin.

Third, research opportunities can emerge from the partnership. Selection of research problems, opportunities for collecting comparable data across cultures, and the testing of theory for a much broader kind of universality than is possible to do in a
single culture can improve not only the body of knowledge in a field, but also professors’ research capabilities.

Remaining Challenges for CAST

There are three particular challenges that CAST still faces in developing degree programs. They are outlined below.

Program Expansion With Few Resources

The first challenge is to offer the degree programs with few additional resources. The Ministry of Education in Jamaica has indicated that no additional monies will be forthcoming to support the added degree programs, so student fees and training contracts with the private sector, the military, etc. will be the primary source of funding. Essentially, the faculty are being stretched to both create degree programs and then to deliver them with only a few adjunct faculty members. Expansion of the CAST programs is consistent with trends in other LDC’s (Coombs, 1985). Despite their declining resources for higher education, many post-secondary schools continue to add to the functions and services they provide. In the post-secondary schools, this is often in response to national strategies to bolster development or to lessen a country’s dependence on educational systems in the more developed countries.

The expansion may aggravate already difficult conditions for professors. Avalon (1985) states that teachers—and no doubt college professors as well—in LDC’s face “problems of even greater harshness than those in the industrialized world. the effects of poor material conditions of teaching, of pupil learning difficulties, and of an often miserable wage structure” (p.297). Providing increased services with only modestly increased resources must be balanced delicately for the structure to remain strong. One mechanism CAST could use to moderate the demand on faculty resources is the frequency with which it admits cohorts and begins the baccalaureate program cycle.

Dependency on the Northern Rim for Knowledge

Dependency on the northern rim—northern Europe, North America, and Japan—for
knowledge is not unique to the baccalaureate program at CAST. It is present in most educational programs in LDC's. According to Altbach (1982) most research is done and textbooks and journals are published in the industrialized nations. The knowledge developed and the materials printed are almost always driven by the needs of these nations. Many professors in LDC's have earned their degrees in northern rim countries and use models from there to develop their own educational systems. Hence, the methodologies, ideologies, and fashions of the West dominate knowledge and education around the world.

At CAST, the most significant challenge is that of providing an "indigenous" degree while still partially depending on the northern rim for knowledge. While the degree program at CAST is obviously offered in the Jamaican setting, mostly by Jamaicans, much of the content knowledge for vocational teacher education will likely remain "imported." That is, many aspects of the relevant content knowledge—most often conveyed in printed educational materials from the north—will be developed by and for other cultures and may be inappropriate for the Caribbean. The most desirable state of affairs would seem to be to use valid knowledge from more developed countries and to develop indigenous knowledge for Jamaica where there are gaps. The challenge of providing a culturally relevant education is one of the most difficult challenges to meet. It is virtually impossible for the Caribbean scholars to test all the knowledge needed by vocational educators for its validity in their setting.

Acceptance of the Degree by Other Institutions

One indicator of legitimacy for the CAST degree programs is recognition of the degree by graduate schools at the University of West Indies and universities in the northern rim. A transcript of a graduate of the business education baccalaureate program was reviewed in the Graduate School at the University of Minnesota to "test" the admissibility of a CAST graduate.

Graduate School representatives indicated they had insufficient information about the college to render a decision (A. Lucas, personal communication, January 9, 1987).
The Graduate School's admission procedures are typical of major colleges and universities in North America. Handbooks on degree granting institutions around the world are routinely used for admissions decisions. Because the Commonwealth Caribbean (Fisher, 1979) was published prior to CAST's initiation of a baccalaureate degree program, the Graduate School could not rely on that source of information. Suggested alternatives are to provide information on the transcript about CAST's charter from the Ministry of Education or official indication that the University of the West Indies routinely admits CAST graduates, should that accommodation should occur. In this case, admission of a CAST degree holder appeared to be a question of the authenticity of the baccalaureate degree, rather than one of the quality of the degree. This distinction is important; the issue is providing sufficient information, not one of northern rim elitism.

Other challenges remain for CAST, but a note regarding the success of the baccalaureate programs thus far is in order before discussing implications for teacher education in other LDC's. Two characteristics of CAST's situation have been alluded to in this paper and should be stated explicitly. First, most of the faculty capacity was in place at the time the bachelor degree programs were being considered. CAST's faculty is well educated, with many professors in the Technical Teacher Education Department holding graduate degrees. Not only was the faculty capable of developing and implementing programs, they had experience--as did the College administrators--in acquiring and utilizing assistance from other agencies. The second characteristic is that CAST maintained control of the process of designing the programs and the authority to grant the degrees. We turn now to implications of the CAST example for teacher education in other LDC's.

Implications for Vocational Teacher Education in Other LDC's

Reflection on the CAST example raises two questions discussed here. Should LDC's develop baccalaureate degrees in teacher education, and what are the transferable
Should Programs Be Upgraded?

The point of departure for further development of any teacher education program begins with this question: "Should a program be upgraded to offer a higher qualification?" There is no assurance that a degreed teaching cadre will necessarily improve the quality of schooling in a country. Two Malaysian studies (Beebout, 1972 & Isahak, 1977) suggest that teachers' higher qualifications influence secondary school students' performance, but other studies (Avalos, 1985) have shown conflicting results. Teachers' skills and the quality of education in a country might be improved by instituting a degree program, but other alternatives might result in equally good or better service to teachers and, in turn, their students. For example, changing the quality or focus of the present teacher education program to increase prospective teachers' awareness of the importance of their philosophies of education, characteristics of their teaching practices, and the contexts in which they will teach (Avalos, 1985) might do more to enhance the quality of education.

Also related to the decision to upgrade programs is a perennial, cross-national concern of balancing the educational needs of differing segments of a citizenry (Coombs, 1985). Using resources to extend tertiary education for a few teachers at the baccalaureate level should be contrasted with the possibility of using the same resources to expand access of the masses to elementary schooling, for example. The demand for schooling from pre-school through graduate programs has increased more during the last three decades than most poorer countries can provide for (Ramirez & Boli-Bennett, 1982). The press for equity for individuals and attainment of national goals for development compound the difficulty of deciding whether to extend teacher education to a higher degree.

Although the brain drain appears to have ebbed in the 1960's (Coombs, 1985), attainment of a baccalaureate degree may increase the "pull" of employment opportunities in other countries. The extent to which individuals perceive that higher
credentials will improve their employment opportunities and, thereby, their standards of living in other countries, they might use the opportunity to attain a degree to migrate; conversely, the extent to which the degree might improve one's upward mobility in one's own country, one may be motivated to earn the degree and remain.

**Instructions from The CAST Example**

If a decision is made to upgrade a teacher education program, the process used at CAST illustrates one way for institutions to build on their present program structures. Assessment of the present program and specification of the desired program enables educational leaders to develop the program structure to bridge the gap between the two.

Incremental increases in capacities in vocational teacher education programs appears to be relatively unobtrusive. In the CAST example, the equivalent of one academic year was added to the three-year diploma program which was already in place. Expanding a program in this manner requires less staff development, fewer additional resources, less planning and implementing time, and does not affect the rest of the educational system in drastic ways as would either reorganizing the present program or originating a new program. The logistics of implementing the equivalent of a fourth year are also more manageable. Offering courses during times of the year that teachers are free from their teaching responsibilities allows them to continue earning an income and prevents disruptions in the elementary and secondary schools. Simultaneously, college faculty time can be devoted to teaching the advanced courses for the bachelor's degree. Further, the use of college facilities can be extended without much additional cost. Of course, in some educational settings incremental increases are not sufficient to meet national goals or societal demands.

Partnerships where expatriate professors are present at the host institution for short periods, cultural intrusion can be minimized. And when the cultural backgrounds of the expatriate professors and the host institution are similar, less intrusion is likely to occur. In the rare instances when persons of vastly different backgrounds are to work together and find themselves to be culturally flexible, collaboration will likely
produce more harmonious outcomes. Often the professoriates of paired institutions will have shared experiences in the higher education sub-culture in more developed countries. To say it another way, professors from LDC's are likely to understand the cultural and intellectual background of the guest professors. When expatriate professors work for only a few weeks with the host institution and work with colleagues as a team to develop syllabi and teach courses, and the decision-making remains in the hands of the of the host faculty, the intrusion can be expected to be minimized at the same time that assistance is maximized.

Short-term partnerships of two to five years between institutions have several advantages in an incremental, institutional strengthening process. Presumably, a faculty in a more developed country would have sufficient depth and breadth of expertise to provide the needed assistance for the further development of the structure of a teacher education program in a LDC. But, in addition to developing structures to achieve the designated goals, the potential of engaging the personal commitment of a critical mass of professors in a more developed country long enough to implement change is also needed. Earlier in this paper, reference was made to testing the admissibility of a graduate of the CAST program into a graduate school in the United States. Without counterparts working together in both countries over time, the last steps of getting the degree recognized in more developed countries would be more cumbersome. Coombs (1985) notes that in instances where the choice of the project and its design and management is left in the hands of the host country, small projects have been very successful; but, on an overall basis the longer-term programs of development, where larger scale changes are desired, seem to be effective.

The CAST example, as well as other examples, of teacher education strengthening projects should be examined by educational leaders in LDC's who have decided to extend opportunities for teachers within teacher training institutions. Providing vocational teacher education programs within their own countries allows leaders to exercise more control over the shaping of their educational systems and lessens dependence on the
northern rim. Increased access to baccalaureate degree programs in vocational education provides teachers an opportunity for continued professional development and upward mobility. However, assumptions regarding the positive influence of higher qualifications on the efficacy of vocational education should be tested in both lesser developed and more developed countries.
References


