The UWI *Quality* Education Forum

Number 13 January 2007

The Changing Landscape of Higher Education

Published by
The Office of the Board for
Undergraduate Studies
(OBUS)

Published by the Office of the Board for Undergraduate Studies
The University of the West Indies, Mona
Kingston 7 Jamaica

ISSN: 0799-1487

UWI Quality Education Forum, formerly published as *YouWeQ,* is published three times a year.

Set in Adobe Garamond 12/16 x 30
Cover and journal design by Robert Harris
Printed in Jamaica by Pear Tree Press

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Preface

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Pro Vice Chancellor, Board for Undergraduate Studies

Profound changes have occurred in higher education globally, and those who have effected these changes have had to grapple with the challenges associated with the increasing student numbers, including demographic changes, demands for accountability and new technologies. In North America and some parts of Europe, higher education systems have been moving from elite to mass and universal access. Universities are being asked to provide more spaces for students and prepare graduates who are responsive to societal concerns. Yet, access and funding collide and there is much debate about who should pay. One approach is to ask the consumer to pay for the cost of instruction since it is believed that it is the individual who benefits in the long term. The directions of higher education in developing and developed nations point to complex components that seek to address the competing factors of access and funding. It is not surprising, therefore, that quality surfaces as an important component in higher education.

The quality of higher education is constantly being challenged by the growing number of students attending universities. The student population at The University of the West Indies has grown more significantly over the past five years than at any other time in its history, creating greater demand on the resources of the institution's campuses and centres. This period of dramatic transition is not peculiar to this region. More students are studying away from home. More students are studying while working. The Internet connects more people across borders. With the new technologies, instant communication is made possible, and knowledge is made accessible to larger numbers of people.

The theme of this issue of the *UWI Quality Education Forum* brings together a multiplicity of ideas that address various components of the changes taking place in the higher education landscape in the region. Each paper explores a different element, yet converges around the responsiveness to change. The impact of HIV/AIDS, the changing relationship between teaching and research, and students' perceptions of the learning experiences are some of the issues that form the backdrop for the maintenance and enhancement of quality in higher education, irrespective of the inescapable consequence of change.

The journal allows us to journey through the myriad issues that confront the university at this time and provides a space for discourse within the context of an institution that is undergoing rapid change in the teaching/learning environment.

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Changes in Higher Education

A Global Glance

ANTHONY M. PERRY

"Universities are currently undergoing a serious identity crisis largely due to the important cultural, economic and political changes taking place in societies throughout the world" (Dias Sobrinho and Goergen 2006). No doubt, this observation arises out of a rigorous debate within and outside the academy concerning the impact and relevance of knowledge, research and teaching within universities to the global economies in both developing and developed societies.

Much has been said about the demand for a diversified higher education sector that is linked to an increased significance and awareness of the vital importance for socio-cultural and economic development, and the need for new skills, knowledge and ideals to serve the twenty-first century. The future is seen to be built around the idea that the younger generation must be equipped with the skills and competencies that will enable young people to function effectively within a dynamic economic and social environment.

Everywhere higher education is faced with numerous difficulties and challenges related to financing, access for marginalized communities to relevant academic programmes and skills-based training, improved teaching, and the employability of graduates. All this is taking place while there is an expansion in enrolment and a widening chasm between the developed countries and the rest of the world with regard to access and resources for higher learning and research.

Issues such as market forces, globalization and vocational training have occupied the minds of many outside of the university system. The movement towards the massification of higher education has been the focus of many policy makers who see higher education as the major vehicle to social and economic transformation. Consumers, on the other hand, have high expectations of an education system that will enable them to gain the skills and competencies for employment and empower them to participate in the development processes of their societies. Parents ardently believe, and justifiably so, that if their children get a university education their lives and that of their children will be enhanced.

Also evident is the growing concern about what the university ought to be and do. This crisis of identity comes as a result of calls to extend capacity and questions about the very nature of the enterprise: the university has to confront the issue of relevance. Universities are being exhorted to move beyond the safe confines of research and teaching and to extend their service to the community by becoming social activists in environmental issues, such as global warming, poverty alleviation, human rights and justice, war, hunger, and disease. Instead, what is happening, according to one former UNESCO official, is an effort to develop, expand and export education as industry. It is argued, there is a concerted move to "commodify" higher education and spread primarily a US brand across the globe. It appears, nevertheless, that as the "expansionist" approach is spread across the globe and universities renew themselves, the knowledge divide widens. This certainly contradicts the prevailing view that the knowledge sharing, international cooperation and new technologies offer new and exciting opportunities to reduce the gap between the most developed and wealthiest nations and the least developed countries in Africa, Latin America and the Caribbean.

All across Europe change is rattling the "temples of learning" (http:www.cnn.com/2006/EDUCATION/11/20/euro.learning.pains.ap/). Admissions, tuition accelerated rate of completion, expansion of private

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universities, fears of the "Americanization" or commercialization of higher education are at the forefront of the discourse. The economic exigencies of job creation overpower the arguments over whether universities in Europe should maintain their mission as imparters of universal knowledge. These arguments are heavily influenced by the perception that Europe's universities "do not provide the skills and research needed to help their countries prosper and compete with rapidly growing economies in Asia and elsewhere" (p. 1).

Arguably, all modern universities have a common genesis, born out of contemporary challenges. According to Altbach and Peterson (1999), academic institutions worldwide stem from common historical roots, necessitating an international dialogue to national higher education concerns. Altbach and Davis take this one step further to suggest ideas and solutions from one country or region may be relevant to another and a comparative and global approach to thinking about higher education benefits everyone.

According to the UNESCO-UIS/OECD 2005 report *Education Trends in Perspective: Analysis of the World Education Indicators,* there is greater global interdependence and competition and dramatic short-term changes in the economic fortunes of nations. The report went to note that "at the same time there has been strong growth in the demand for learning opportunities, from early childhood programmes to advanced tertiary-level studies, as individuals and societies recognise the important long-term benefits of education" (p. 5). But it is within this expansive mood that the funding dilemma surfaces. In searching for effective ways to meet the demands of a growing education sector, developing countries usually must decide which sector receives the greater level of government financial support.

Although it is widely accepted that the benefits of education to the individual and the society are wide-ranging, the steady expansion of education at the secondary and tertiary levels, the question of the costs to the respective governments have not gone unnoticed or unchecked. In fact, in some countries, the provision and financing of basic or compulsory education for all children, seen as the responsibility of the state, has become the priority – leaving the tertiary sector to seek private funding. This is happening at the same time as the sector expands. The UNESCO report indicated that tertiary programmes were the fastest growing education sector in most World Education

Indicators Programme (WEI) and Organisation for Economic Cooperation and Development (OECD) countries.[1] Between 1995 and 2003, enrolment in tertiary education grew by 77 per cent in eight years in WEI countries.

What were the common features of the tertiary sector in the WEI countries? Growth has been evidenced mainly in public institutions; funding came primarily from state funds; there is a variety of private education providers and gender equity has not yet been achieved. While most WEI countries have not reached gender equality in education, Jamaica, Paraguay and Peru are the only countries with no substantial differences in school expectancy between boys and girls (UNESCO-UIS/OECD 2005).

The increased participation in higher education globally is not only because individuals view education as an investment for personal development, job creation and social mobility, but because developing countries attach education advancement to increased economic performance. Just as it is true for emerging economies, it is so for the more developed societies. It is the recognition that education plays a significant role in economic development. There is the expectation that in a knowledge economy, education and human capital drive economic growth, thus participation in higher education becomes an important factor.

This recognition does match with spending in several countries, though spending in higher education especially becomes a financial burden, particularly in WEI countries. Education expenditure relative to gross domestic product in many developing countries is similar to that in OECD countries. On an average, 3.9 per cent of gross domestic product is spent on primary, secondary and post-secondary non-tertiary education and an additional 1.3 per cent on tertiary education in most developing countries, compared with 3.8 and 1.4 per cent respectively of OECD countries. Germany, France and Italy spend approximately 1.1 per cent of gross domestic product on higher education, nearly all of that from state funds. The United States spends 2.6 per cent, with endowments funding the majority. Additionally, governments' expenditure on education in many WEI countries relative to other sectors of expenditure increased. This was most evident in Chile, Jamaica, Malaysia, Paraguay and Thailand, where the share of total public expenditure spent on education increased by 30 per cent or more (UNESCO-UIS/OECD 2005).

However, the expenditure on tertiary education has interesting variations in WEI countries, influenced primarily by different conceptions of the role of tertiary education – the difference emanating from the perception of tertiary education as a public good requiring public intervention against the private returns to tertiary education perceived to justify comparatively less public funding compared to lower levels of education (UNESCO-UIS/OECD 2005).

The demands for increased access have usually conflicted with funding, especially in developing economies. Undoubtedly, higher education is an expensive enterprise. But the debate is not only over who shall pay but how much the sector should get when the primary and secondary sectors are competing for funding from the meagre coffers of governments and especially when the latter two systems are stressed as being more cost-effective. The current and common approach is that the "consumers" or "users" should pay. That is all good and well for consumers in developed societies, but not so for those elsewhere. The case of Trinidad and Tobago and Barbados highlights the opposite where a strong economy and governments' commitment to higher education as a vehicle for national development have afforded university students the opportunity to benefit from free tuition. In contrast, university students in Jamaica must either seek student loans or private funding for their education.

Higher tuition and student loans are the two most favoured means of tackling the funding problem. Some governments see these as alternatives to direct expenditure on higher education. Yet with the rising enrolment, resources, including teaching staff, and academic infrastructures, including libraries and laboratories, are seriously affected. Research interests have to be tempered by insufficient funding and students complain and even protest over inadequate teaching/learning support. The introduction of tuition fees in the 1990s in Britain was not popular among students. French researchers mounted nationwide protests against perceived interference into educational affairs by businesses and the government. In Germany, protesters rallied against the state's proposal to introduce tuition fees. All this was taking place while China and India, in particular, began to adopt Western-style models of higher education as their economies began to face the same contemporary challenges resulting from the advancement of science and technology, economic growth, social

changes, and the internationalization and globalization of the world economy.

In 1998, UNESCO positioned higher education as a centrepiece in the building of a future in the twenty-first century. *The World Declaration on Higher Education for the Twenty-first Century: Vision and Action* and the *Framework for Priority Action for Change and Development in Higher Education* proclaimed in several articles what that august body saw as the groundwork for providing solutions to the challenges facing higher education globally and preparing the way for the reform on higher education.

One could argue, however, that since then little has changed in many countries. Quality and relevance continue to take centre stage. Women and girls and other marginal groups are still under-represented in higher education. Human rights, democracy, sustainable development and peace remain elusive in many parts of the world. Dropout rates continue to grow and some European colleges experience a 40 per cent attrition rate. The Associated Press reported in 2006 that more than a third of adults in the European Union cannot perform simple computer tasks such as using a mouse to access an Internet site or working with a word-processing programme. The academic profession is wilting under the strain. Part-time faculty members are the norm rather than the exception and tenure is under attack in many universities. Teaching staff is being asked to do more with less, argue Altbach and Peterson (1999), and morale is low. Without a committed academic profession and adequately trained administrative and technical support teams, the university, irrespective of its location, cannot be an effective agent of change.

Higher education exists in an arena of uncertainty. It has been unable to change and bring about change to address societal problems and to improve the quality of life. The financing of higher education as a public service stirs a great deal of passion among policy makers. The role of the state in strengthening the funding resources for public institutions is constantly being undermined, while governments work to ensure that public universities, at least, achieve their mission.

The changes in the higher education landscape are both dramatic and far-reaching. They are national, regional and global and they are sweeping across Central and Eastern Europe, Africa, Asia, Latin America, and the Caribbean. The experiences of Australia point to what might be possible elsewhere when

public policy in respect of higher education is reviewed and revised in the context of globalization, information and communications technology, fiscal prudence, and the centrality of knowledge to productivity improvement and economic growth (Gallagher 2001). The commercialization of higher education is being viewed with a great deal of scepticism. Opponents of the market-driven model worry that reforms being proposed in Europe and eagerly being embraced in several developing countries will transform students into commodities for profit-centred universities and fear that some disciplines with limited market value will disappear from the curriculum.

Yet, whatever changes are being contemplated or are already being experienced, higher education institutions worldwide continue to face similar challenges. Public universities face severe competition from private providers within and outside national borders. The transfer of talent across continents, brought about through the migration of students, contributes to the haemorrhaging of the societies of developing nations. Albeit an exciting dimension of expansionism, internationally mobile students have a serious impact for those countries that lose their most talented individuals to the developed world. Graduate students represent a considerable proportion of those who do not return to their country of origin upon the completion of their studies.

Change brings about some amount of discomfort, even dislocation. But if the modern university is to remain relevant in an era of technological advancement and responsive to the socio-cultural dynamics evident in all societies, then it must reinvent itself to serve larger and more diverse communities of learners. Even as we have come to believe that the United States has a well-developed model, we have also begun to recognize that model is under threat and some transition is taking place.

According to Altbach and Peterson (1999, vi), our purpose is, therefore, "to assess the relevance of current models and to consider how these models might better incorporate and reflect changing assumptions about and vehicles for

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human capacity development". Higher education and its future is neither simple nor straightforward, the authors opine. It is not certain and it is changing faster than we can imagine and before we have time to determine the impact on those it seeks to serve. Yet, while we look outside at other systems and models of education, nation states must contemplate and construct a system that has the capacity to combat poverty and hunger, discrimination, war and violence, environmental degradation, and hopelessness by engaging a more discerning population and offering the possibility of transforming the world one individual at a time.

Note

1. UNESCO and OECD, with financial aid of the World Bank, launched the World Economic Indicators Programme in 1997. The original group of participants consisted of Argentina, Brazil, Chile, China, India, Indonesia, Jordan, Malaysia, the Philippines, the Russian Federation and Thailand. In addition to the original eleven countries, eight new countries (Egypt, Jamaica, Paraguay, Peru, Sri Lanka, Tunisia, Uruguay and Zimbabwe) subsequently joined the programme.

References

Altbach, P.G., and P.M. Peterson. 1999. Higher Education in the Twenty-first Century: Global Challenge and National Response. Boston: Institute of International Education and Boston College Center for International Higher Education.

Dias Sobrinho J., and P. Goergen. 2006. Social commitment to higher education. In *Higher Education in the World 2007: Accreditation of Quality Assurance – What Is at Stake.* GUNI Series on the Social Commitment of Universities 2. New York: Palgrave Macmillan.

Gallagher, M. 2001. The changing face of higher education: Public policy and commercial reality. Paper presented at Globalization and Tertiary Education Forum of the Australian Association for Institutional Research.

UNESCO-UIS/OECD. 2005. *Education Trends in Perspective: Analysis of the World Education Indicators.* Paris: UNESCO.

A Role for "Teachers-Only" in Higher Education

The Case of The University of the West Indies

FRANCIS O. SEVERIN

The Teaching, Research and Service Roles of Higher Education Institutions

Conventionally, higher education institutions have viewed the transmission of knowledge as their *raison d'être*. This tradition began with the early universities like Paris in France, Bologna and Venice in Italy, Salamanca in Spain, and Oxford and Cambridge in England. It is in recent times, relatively, that a new mission was added to this traditional role. To be sure, this new function, research, has become an end in itself (Perkins 1973 in Ballantine 2001) and has, in many institutions, dislocated the sacrosanct function of transmitting knowledge, the latter taking second place and no longer being the fundamental criterion by which universities are measured. Ballantine (2001, 268) says:

> This new mission created tension between teaching and research, causing strains on the teacher-student relationship and between faculty members with different orientations and interests. This tension is familiar to us today as professors divide their time between students and research. In many countries, research wins out because more monetary and prestige rewards are attached to these activities than to teaching.

The apparent upheaval in academe has been aggravated by the addition of

two further functions as higher education institutions attempt to meet the challenges that accompany certain and irrevocable socio-economic change. These functions are the provision of services to the community and the creation of an ideal democratic community within the institutions themselves (Perkins 1973 in Ballantine 2001). When the preceding is juxtaposed with the transformations in the governance, administrative structures and curricula of universities, as well as changes in student demographics (Ballantine 2001) and the modes of teaching (conventional and virtual), one begins to perceive a "cacophony" of contending priorities in higher education in the twenty-first century.

Regarding the function of research, it is often taken for granted that an important role of higher education institutions is the expansion of knowledge (which is only truly possible through research). However, institutions are constrained, especially in developing countries, by the extent to which business, industry and government will support them in this thrust. This also raises the issue of the influence that the source of funding might have on the "outcome" of research, a matter which is beyond the scope of the current paper. Also, decisions must be made concerning where priorities should lie – whether in basic or applied research.

Public service to the wider society has increasingly occupied the agenda of higher education institutions, if only as a marketing/promotional tool to enhance their profile and undoubtedly entice more students and, by extension, future alumni. Publications, the media, teaching and public lecturing are the usual channels for fulfilling this function. In addition, their students become involved in community-service work, often as part of their course requirements (Ballantine 2001).

For a fuller grasp of the traditional teaching function, a brief look at the functionalist perspective is instructive. As a point of departure, the functionalists ask two basic questions: (1) What are the functions of education for society as a whole? (2) What are the functional relationships between education and other parts of the social system? (Haralambos and Holborn 2000). Responses to these questions highlight the conservative bias of functionalism, that is, a focus on the positive contributions of education to society, an assumption that the knowledge transmitted in some way benefits society

because its derivation is based on consensus and is therefore readily embraced by everyone. Indeed, there is an unrecorded assumption that everyone has equal access to that knowledge; hence, higher education is sought after, so the argument goes, because it aids individual opportunities; it enhances the possibility of equal chances by transmitting the skills required in an intricate technological world and, in so doing, improves an individual's ability to compete and participate in the system in a productive and normative way; and it helps society by preparing individuals to fill its fundamental roles.

All of the above presupposes the transmission of knowledge, and no doubt explains the traditional primacy of this function and the apparent reluctance of higher education institutions to come to terms with the changing demands of stakeholders, including public and private sectors, government, industry, and students. On the other hand, as these imperatives force them to emphasize research – in both its pure and applied forms – and service to the community, some have tended to overlook the very transmission of knowledge to the detriment their students. Herein lies the bone of contention and the issue that the current paper addresses with respect to higher education in general and The University of the West Indies (UWI) in particular.

Additionally, there are considerations, which Ballantine (2001, 281) raises, of "the nature of the academic programs; whether to teach factual knowledge, or also values and beliefs, and even practical skills; the meaning of freedom of inquiry for scholars; and what should be included in the activities of a university". These impact on the transmission of knowledge.

What Is at Issue Here?

The current paper is set against the backdrop of the issue involving the promotion of academic staff (teaching) based on their teaching competence visá-vis research output. The problem is neither new nor recent and, aside from its pervasiveness in higher education institutions throughout the world, has been visited, formally and informally, on a few occasions at the UWI, with stakeholders failing to arrive at a compromise regarding an appropriate weighting of these functions, assuming they might be plausibly discrete responsibilities at a modern institution of higher education.

The matter is one that assumes ever more significance as higher education institutions seek to become more relevant to the social and economic demands of their clientele – the public and private sectors, government and industry, and students – and in some cases, to justify their very existence. Alongside this is a renewed commitment to undergraduate teaching "pushed" by a demand to give students their money's worth. The question might be asked: Is it appropriate to assume a zero-sum principle regarding teaching versus research, such that more of one presupposes less of the other? Or conversely, and perhaps side by side with the foregoing option, should the UWI divide labour between the excellent researcher and the master teacher?

It is all well and good that the UWI and other higher education institutions adopt the position that academic staff who show a proclivity or talent for either research or teaching must be administratively encouraged to pursue these routes. Certainly, doing so should ultimately redound to the benefit of these institutions. However, it seems reasonable to argue that in the case of those who shall be dedicated teachers, the institution concerned should not merely leave them to their raw talent or own devices, since teaching is a science with its own specialized theories and practices. Hence, if standards are important, any institution that is concerned with learning outcomes should hone the skills of its lecturers/teachers.

In the early 1990s, Stanford University, and subsequently Cornell and others, led the way in taking the stand that evaluation of teaching would be a fundamental part of the promotion process (Ballantine 2001). But initiatives such as these create many tensions and several university lecturers view the attempts to train them to teach as an unnecessary imposition or, at best, a necessary evil. For instance, Lipsett (2005, 1) says, "Some young academics are so unimpressed by universities' attempts to teach them how to lecture that they are dismissing their training as a waste of time." She adds, "many claim they are unnecessary because they already have teaching experience, that they add to already heavy workloads and that they take up time that might be better spent on research" (p. 1). Joanna Bryson, a lecturer at Bath University's computer science department, laments, "It's not that you don't need people helping you out and showing you the ropes, but they are not used to teaching people who have PhDs. There's no other country in the world where you need

another qualification to be an academic" (cited in Lipsett 2005, 1 and 10). Dylan Evans, a senior lecturer at the University of the West of England, was an experienced teacher before he became an academic. Holding a diploma in teaching, he once taught English as a foreign language. He reveals, "None of this was taken into account when I started . . . Everyone hates the course but has to do it, which doesn't seem rational. It's not appropriate for those starting off with lots of research to get off the ground" (cited in Lipsett 2005, 10).

In reading the above, one might perceive the unequivocal tensions between obligations of research and teaching. There is also the suggestion that there might not be much opposition to the teacher-training attempts if "official" flexibility was allowed in these areas, and the both roles were not necessarily required of all academic staff. Further, this would be preserved in their formal contracts rather than treated on an ad hoc and post hoc basis. According to Mark Figueroa (2005, 1), dean of the Faculty of Social Sciences at the UWI's Mona campus in Jamaica:

> Currently there is limited flexibility in terms of the a priori allocation of duties in these areas (research and teaching and service). The main flexibility relates to the difference between academic staff in the mainstream teaching departments and those in research institutes and the relief granted to persons who have additional administrative duties.
>
> The application of a more flexible approach to the allocation of work loads to academic staff with "normal contracts" and the wider use of contracts that involve differential loading for different members of staff could, if properly managed, allow UWI to improve its rating on all the outputs by which it is judged.

Judy McKinn, the Higher Education Academy's senior registration and accreditation adviser, appears to share this view, albeit from a slightly different perspective. She is supportive of the weight that should be added to teaching at higher education institutions. She urges, "I think universities need to think through the implications of programmes . . . It helps put teaching and learning on the agenda, but staff need to be supported" (cited in Lipsett 2005, 10).

That said, it is difficult to overlook the fact that at many institutions, including the UWI, tenure and promotion are often based on research and ability to publish, as opposed to teaching or even service to the community. Traditionally, the UWI's criteria for promotion of academic (teaching) staff

have been unequivocal. Volume 2 of the *Charter, Statutes and Ordinances* (1998), specifies that academic staff are expected to both teach and conduct research. Under the section entitled "Promotion Criteria" (14 [b] [i]) of Ordinance 8 (Powers of Appointment, Promotion and Dismissal), it is clearly stated that the appropriate Appointments Committee shall take into consideration the following areas of activity in respect of the named staff categories:

- academic staff (Teaching): *research*, publication, *teaching*, contribution to university life, public service, scholarly and professional activity;
- academic staff (Research): *research*, publication, contribution to university life, public service, scholarly and professional activity. [Emphasis added.]

From the foregoing, it may be noted that academic staff (teaching) is expected to do both teaching and research while this is not so for academic staff (research). This dual task as teacher and researcher of academic staff (teaching) is based on the premise that, to be able to teach effectively and informatively (both in terms of the substance and currency of one's information), academic staff must carefully research their areas of interests/emphases. They might therefore bring a more informed perspective to their lectures and tutorials.

One possible solution would be to formally establish the category of "teaching-only" staff, which, as this designation implies, focuses on teaching. Indeed, Figueroa (2005) strongly urges caution in respect of the terminology "teaching-only" staff. He believes the term lends itself to misinterpretation since it implies a narrow and restricted role for academic staff who might for whatever reason be asked to focus on teaching whether for shorter or longer periods. Apart from definitional issues, he takes the view and in fact feels certain that the concept may invoke strong resistance, as there is also the implication, real or imagined, that flexibility in terms of teaching loads might well devalue the UWI's enterprise. The present writer uses the term for convenience, however, being in agreement with the above view. Furthermore, a broad view of "teaching" competence is taken, one that encompasses not only the technical (pedagogical) skills, but also the human relations and pastoral skills that enhance teacher-student relations.

Developments re "Teaching-Only" Staff

In the early part of the 1990s, a proposal regarding "teaching-only" staff was made to the relevant Appointments Committee. The line of reasoning was that, in view of the difficulty some staff were experiencing with promotion/progress because their research output was not up to the mark, consideration should be given to establishing a new category where the main criterion would relate to quality of teaching, thereby accommodating staff whose strength was not in research. (Extensive research in the archives does not reveal these documents but oral accounts of its occurrence are reliable.) It is to be noted that many members of the academic staff themselves were unhappy with the concept of "teaching-only" academic staff, arguing that good teaching is informed and enriched by good research. The opposition to this "teaching-only" category was especially strong from academic staff at the UWI's pure and applied sciences faculties (then the natural sciences).

One of the propositions floated at that time regarding "teachers-only" was that they ought to be paid less than those expected to teach and conduct research and to publish. Since the concept was never supported, the "teaching-only" staff remained the demonstrators and foreign language assistants. Part-time staff, comprising a substantial 49 per cent of the staff complement across the UWI, would inevitably fall into the category of "teaching-only" staff (Office of Administration 2005). The foregoing represents more of a concession than a practical resolution to a desire for staff who would perform the role of "master teacher". What the UWI does not want – and in fact the danger looms – is to equate "teaching-only" with "part-time", thus trivializing the value of good quality teaching, especially given the fact that there appears to be little quality control of part-time staff.

The UWI's vice chancellor, Professor E. Nigel Harris has reopened the matter, especially against the backdrop of the growing emphasis by higher education institutions of encouraging good teaching and, by extension, tangible quality service to their major stakeholders, the students. The lecture room, in that respect, represents the moment of truth. Over the years, some members of staff at the UWI have received the Vice Chancellor's Award for Excellence in the area of teaching (about three staff members between 1993 and 2003)

and, more often, "teaching along with other areas such as research, administration, service to the university" (also between 1993 and 2003). Outside of this, there has been encouragement from other sources, such as the teaching awards offered by Guardian Life and the Association of Atlantic Universities which encompass the United States, Canada and the Caribbean.

The above, coupled with the fact that research has shown that teacher behaviours along with specific teaching principles and methods make a difference with regard to student achievement (Lunenburg and Ornstein 2000), make it a fitting issue to revisit.

What Do Our Clientele Want?

The clients of higher education institutions, it might be assumed, want several benefits and have various needs. One merely has to consider the range of clients – government, industry, entrepreneurs and students, as well as the several layers of the foregoing. Even in terms of the latter, changing demographics of present and would-be students places extra strain on such institutions. Notwithstanding, one might safely assume that students, our focus here, want good teaching. Normatively stated, the UWI's primary focus ought to be its students. Many students will judge the university on the basis of excellent teaching and alumni will remember their alma mater in terms of its dedicated teachers, among other factors. The learning/academic environment, of which teachers are a fundamental part, is therefore vital. Okwilagwe (2002) points out that systematic analysis of the learning environment has been on the rise for some decades now. By extension, thousands of studies have been carried out to ascertain the behaviours of successful and unsuccessful teachers (Lunenburg and Ornstein 2000). Lunenburg and Ornstein (2000) are careful to add that teaching is a complex act and, consequently, research has not been able to agree conclusively on what constitutes "good" as opposed to "bad" teachers or "effective" as opposed to "ineffective" teachers. Blake, Hanley, Jennings and Lloyd (2000) agree, determining that excellence, quality and effectiveness are problematic terms. They found, for instance, that different groups (teachers, principals, parents, teachers) placed different emphases on

various aspects of effectiveness. This should not, however, dishearten educational administrators and academics at the UWI and other higher education institutions in the region. It is imperative that they explore ways and means of developing the teaching skills of their academic staff. Lunenburg and Ornstein (2000, 475) also note, for instance, that

> [some] researchers assert that appropriate teaching behaviors can be defined (and learned by teachers), that good or effective teachers can be distinguished from poor or ineffective teachers, and that the magnitude of the effect of these differences on students can be determined . . . .the kinds of questions teachers ask, the ways they respond to students, their expectations of and attitudes toward students, their classroom management techniques, their teaching methods, and their general teaching behaviors (sometimes referred to as "classroom" climate) all make a difference.

Having said so, Lunenburg and Ornstein warn that the drive towards teaching quality must be a total one since it is likely that the positive effects of good teachers upon student performance may be negated by the relative negative effects of other teachers within the same institution. The following is also instructive:

> The teachers may not be the only variable, or even the major one, in the teaching-learning equation, but they can make a difference, either positive or negative. Here it should be noted that negative teacher influences have greater impact than positive ones, in that students can be turned into nonlearners and experience loss of self-concept in a matter of weeks as a result of a hostile or intimidating teacher. (Lunenburg and Ornstein 2000, 475–76)

In a study aimed at identifying the factors that influenced the academic climate in the Nigerian university system, Okwilagwe found the following were important in the academic environment associated with undergraduates (cited in Okwilagwe 2002):

- the commitment to teaching of lecturers/commitment expected of students
- personal attention to students
- relations with students
- freedom of students' learning

- academic guidance
- respect for students

In a follow-up study, Okwilagwe (2002) found that, on the positive side, there were several points of similarities between the academic climates of different departments, in terms of the following:

- commitment to work expected of students
- submission of assignments on schedule
- absolute dedication to work demanded by lecturers
- irregularity in students' attendance in class frowned upon
- clear information given on course assignments and tests
- approachability of lecturers on academic matters
- commitment of lecturers to teaching resulting in a feeling of great worth (on the part of students)
- innovativeness of lecturers in teaching

Noteworthy is that the above list, arranged in descending order of strength of agreement by undergraduates, suggests that the specifically "teaching/commitment to teaching" matters received the smallest percentage of positive responses. Okwilagwe (2002, 11) emphasizes that

> the consensus among students would seem to suggest that in more than one department lecturers were not seen as sufficiently committed to teaching yet students were expected to be completely committed, attending lectures without fail, submitting assignments on time and taking tests and examinations.

It would appear, then, at least from Okwilagwe's findings, that students feel there ought to be a quid pro quo, whether or not formal, in the exchange between themselves and faculty and are thus distressed when this is not forthcoming. The Higher Education Research Institute found that greater numbers of students in higher education institutions in the United States reported being bored in class – 40 per cent in 1999 compared to 26 per cent about a decade and a half earlier (in 1985) (cited in Ballantine 2001).

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What Outcomes Do We Hope to Achieve?

Three overall possible educational outcomes of higher education with respect to our clientele include

- changes in attitudes and beliefs, including political and religious (for example, on feminism, on philosophy of life, on abortion, commitment to environmental preservation, commitment to fighting HIV/AIDS as well as greater tolerance of people living with HIV/AIDS, and so on);
- higher occupational status and higher future earnings; and
- positive self-image and greater interpersonal and intellectual competence.

The above sometimes reflect as much the content of what is taught as how it is taught or presented, that is, if it is assumed that teacher behaviours and specific teaching principles and methods, have an effect on student achievement (Lunenburg and Ornstein 2000). Lunenburg and Ornstein (2000) cite a seminal review by Rosenshine and Furst which, although done over three decades ago, is still instructive. They found that five teacher processes showed the strongest correlation to positive outcomes:

1. Clarity of teacher's presentation and facility in managing classroom activities
2. Variability of media, equipment, teaching materials and activities employed by the teacher
3. Enthusiasm, which includes teacher's movement, voice modulation and so on
4. Task orientation or professional behaviours, structured schedules and a scholastic focus
5. Student opportunity to learn which speaks to the teacher's coverage of the subject material or content on which students are tested

Bhattacharya (2004) likewise examined some of the factors that contribute to "good teaching" in the realm of higher education in engineering in India. While her findings may not be equally applicable to all institutions, they give a sense of what might bring about the educational outcome after which our students hanker. She found that a comparison of the perceptions of students

and teachers regarding the ranking of given criteria yielded comparable responses. An examination of the list (see Table 1) will also reveal similarities with Rosenshine and Furst's list and should underscore the effect of teaching on bringing about the three academic outcomes listed above.

Table 1. Order of Preference of Criteria of "Good Teaching"

Students' Views	Faculty Members' Views
1. Knowledge of the subject area	1. Knowledge of the subject area
2. Clarity and lucidity of presentation	2. Clarity and lucidity of presentation
3. Stimulation of student interest	3. Structure/logical organisation
4. Structure/logical organisation	4. Stimulation of student interest
5. Promotion of analytical thinking	5. Clarification of course objectives
6. Ability to make the course enjoyable	6. Encouraging student questions
7. Motivating ability of the teacher	7. Sincerity level of the teacher
8. Clarification of course objectives	8. Ability to make the course enjoyable

Source: Bhattacharya 2004.

The UWI's Office of the Board for Undergraduate Studies (established in 1996), through its Quality Assurance Unit (established in 2001), has developed and implemented a formal process of quality reviews and quality assurance (Leo-Rhynie 2004). However, according to Elsa Leo-Rhynie, pro vice chancellor of the Board for Undergraduate Studies, the UWI has always had internal quality assurance measures for its programmes, even those that are not subject to professional accreditation. This includes course and programme approval, use and approval of first and second examiners, university and external examiners – all enshrined in the regulations of the UWI (Leo-Rhynie 2004). In reiterating the characteristics that make the UWI a unique institution (for example, critical developmental role in the Caribbean region; nurturing of leaders; strong, relevant research tradition; and the knowledge base for triggering Caribbean economies), Leo-Rhynie painstakingly points out that these characteristics will only make sense or matter to accrediting bodies that know and are sensitive to regional context and relevance. She is

also anxious to know the extent to which accrediting bodies focus on "inputs and resources while disregarding or paying less attention to the current emphasis in higher education on learning outcomes" (2004, 3–4). In that regard, she raises a number of pertinent questions about educational outcomes:

1. Are employers satisfied with the personal and intellectual abilities and skills graduates bring to the workplace?
2. Do these individuals understand themselves, are they able to manage change and deal with the varied and complex life choices they will have to make?
3. Can they solve problems, think strategically, communicate effectively?
4. Are they responsive to social needs?

She advises:

> [I]t is important that both institution and agency focus on quality enhancement and on outcomes which indicate new thinking, new ways of doing things, reforming and reorganizing curricula and offerings for students, of experimenting with and generating creative ways of ensuring students' learning. (2004, 4)

It is possible to argue that teaching quality would be an important variable in achieving these outcomes.

What Are or Should Be Our Priorities?

In the context of limited resources, especially given increasing competition from international and national higher education institutions, what are our priorities?

Here, some digression is necessary. In planning strategically, higher education institutions must conduct their SWOT analysis which considers, among other things, the areas of research and teaching, and where exactly they perceive their strengths and weaknesses to reside. This is particularly urgent in a context of a single enlarged economic space where higher education institutions are competing with each other with unequal resources at their disposal. In saying this, it must be borne in mind that the main purpose of strategic

planning is to achieve equilibrium between the institution of higher education in terms of its values, missions, goals and priorities, and the external environment in which it is located. If it does not aim for such a balance, it may find itself wasting scarce resources (including money and human resources) on areas that are superfluous. It therefore must align its human and physical resources with the changes and opportunities in its external environment.

Once institutions of higher education do so, they might well find that teaching must take a far second place to research or, quite possibly, the other way around. They may also discover that some departments or faculties require greater inputs of researchers while others, greater inputs of teachers. Determination of such needs, of course, requires detailed needs analyses. Thus, the "teacher-only" category is offered not as a necessary or even inevitable one. Rather, institutions must first determine what the needs of the external environment are and position themselves, given their strengths and weaknesses, to meet those needs; they must also grasp the opportunities while circumventing, if not overcoming, the threats. Also, it is important to bear in mind that conditions and trends change continuously, so readjustments must also be made continuously.

Can We Deliver on Our Client's Wants?

Do we have the structures in place, in terms of how we define and motivate our academic staff, to deliver on our clients' wants? Returning to the focus on the students, once it has been determined that there is a role for the excellent teacher in higher education, institutions must do what is necessary to develop this skill or facet in their academic staff. At the UWI's three campuses, the Instructional Development Unit (IDU) has been established out of a recognition that the UWI faces the challenging task of presenting academic programmes to a wide range of students with diverse entry qualifications, from varying backgrounds, varying levels of experience (some are employed while others are recent high school graduates, for instance), and varying demographics.

In spite of this, academic staff (teaching), while being well qualified in their

respective disciplines, are often unprepared for teaching and therefore are not the best facilitators of learning. The IDU's objectives of staff development might be seen as contributing to an "institutional hallmark of standards and quality in student performance" (IDU 2005). The IDU offers workshops on teaching skills and a range of teaching-learning matters, including course design, teaching large and small classes, and the application of modern technology to teaching. Additionally, when departments or faculties have special needs, the IDU will tailor workshops to respond accordingly. Tutors and graduate teaching assistants also benefit from the these training programmes.

Towards the end of each semester at the UWI, students are asked to complete a questionnaire designed to assess their courses and lecturers. Copies of the summary assessments are sent to department heads, deans, human resources (registry) and to the library where students are able to access them. Where necessary, heads must furnish reports on what actions their departments have been pursuing to strengthen teaching quality, which sometimes involve utilizing the IDU (Periera 2005).

Conclusion

The matter of "teachers-only" in higher education cannot be treated thoroughly in a literature-based essay. There are many contending views on this matter and even the very designation "teaching-only" is problematic and might invoke disquiet among faculty. One dean admits that such was his experience when he attempted to get flexible work loading accepted at his faculty (M. Figueroa, personal communication, 29 May 2005). However, it is increasingly important, as competition increases, that institutions of higher education perform optimally in all areas. The function of teaching is logically going to be important in that respect. Bhattacharya (2004, 329–30) underscores this point when she says:

> A teacher's role consists of guiding the learning process within the diverse areas of knowledge in his/her field. It also involves selecting the approaches that should effectively communicate this knowledge to students (Richlin and Cox 1994). But "good teaching" in universities tends to go unrecognized and

> unrewarded – perhaps because it is less easy to suggest measures of excellence in teaching comparable to those used to judge the quality of research effort and outputs. It is now additionally argued that if procedures which enable good teaching in higher education could be reliably identified and then applied to support recognition and reward, it would encourage good teaching, and hence high-quality learning, throughout the higher education system. (Griffith Institute of Higher Education 1995)

In the light of the discussions above, the following steps are recommended:

1. A UWI-wide study should be undertaken to ascertain the perceptions of students, faculty and administrators on this matter. This study must use both qualitative and quantitative methodologies and, by extension, intra- and inter-triangulation of methods.
2. An investigation should be conducted to specifically examine the quality of supervision provided to students doing higher degrees. This is especially important for the UWI as it attempts to meet changing research agendas in the region as well as create a pool of potential faculty trained at the highest levels in their disciplines.
3. Assessment of lecturers and courses must be continued, with systematic follow-up to ensure that errors are corrected.

If the current paper has served to revive thinking about the issue addressed here, then it would have achieved its objective.

It is important that both institution and agency focus on quality enhancement and on outcomes which indicate new thinking, new ways of doing things, reforming and reorganizing curricula and offerings for students, of experimenting with and generating creative ways of ensuring students' learning.

References

Ballantine, J.H. 2001. *The Sociology of Education: A Systematic Analysis.* 5th ed. New Jersey: Prentice Hall.

Bhattacharya, B. 2004. What is "good teaching" in engineering education in India? A case study. *Innovations in Education and Teaching International* 41, no. 3: 329–41.

Blake, D., V. Hanley, M. Jennings and M. Lloyd. 2000. "Superteachers": The views of teachers on the advanced skills teacher grade. *Research in Education: An Interdisciplinary Research Journal* 63: 48–59.

Figueroa, M. 2005. A proposal to increase research, teaching and service outputs by flexibly allocating academic staff time. Paper presented to Career Path Committee, The University of the West Indies, Mona, Jamaica. 4 April.

Haralambos, M., and M. Holborn. 2000. *Sociology: Themes and Perspectives.* 5th ed. London: HarperCollins.

Instructional Development Unit. 2005. About the Instructional Development Unit. The University of the West Indies, Mona. http://www.mona.uwi.edu/idu/pages/handouts.htm and http://www.mona.uwi.edu/idu/pages/hist.htm. Accessed 26 May 2005.

Leo-Rhynie, E. 2004. Preface: Accreditation issues. *YouWe Quality Education Forum* 10: 1–4.

Lipsett, A. 2005. Lecturers bored by lessons in teaching. *Times Higher Education Supplement.* 22 April.

Lunenburg, F.C., and A.C. Ornstein. 2000. *Educational Administration: Concepts and Practices.* 3rd ed. Belmont: Wadsworth/Thomson Learning.

Okwilagwe, E.A. 2002. Nigerian students' perceptions of academic departments as a teaching and learning environment. *Research in Education: An Interdisciplinary Research Journal* 68: 1–14.

Office of Administration and Special Initiatives. 2005. The matter of teaching-only staff: Discussion paper for Career Path Committee. Paper presented to Career Path Committee, The University of the West Indies, Mona. 4 April.

Periera, J. 2005. Report on student assessment of teaching. *UWI Quality Education Forum* 11: 70–73.

The Associate Degree as a Pathway to University Education

How Does It Measure Up?

MARCIA A. STEWART

The growing recognition of the importance of knowledge and the role of higher education in supporting and enhancing the process of economic and social development has led to a mushrooming demand for higher education both from political directorates who view it as a pathway to national development and from individuals who see it as a vehicle for personal, social and professional improvement. Education is generally associated with better skills, higher productivity and an enhanced capacity for improving quality of life, and it is therefore essential at all levels if economies are to participate in the global marketplace.

Developed and developing countries alike are working to increase access to higher education, which has resulted in a global trend towards the accelerated expansion of higher education and a movement away from elite higher education systems and towards mass systems. In their efforts to find their place in this new environment, developing countries have come to look to their higher education systems to provide support for national efforts to raise standards of living and to alleviate poverty. Higher education has perhaps never been more important to the future of the developing world than it is today, as sustained progress is impossible without it. Without improved human capital, countries will experience economic marginalization and isolation. Higher education

must therefore enhance progress in a period of global challenges and must prepare graduates to grapple with, and contribute to, economic progress while also satisfying personal fulfilment.

In the twenty-first century, consequently, there has been an increased awareness of the importance of higher education and a demand for its expansion and diversification. This is reflected in the UNESCO Declaration on Higher Education for the Twenty-first Century, which proclaims the need for access to a wider public through diversified higher education models and a variety of delivery modes characterized by new types of tertiary institutions. The history of higher education in the last fifty years has largely been one of transformation from an elite system to mass higher education. Institutions have grown from a small number of universities with enrolments of 3 to 5 per cent of the age cohort to a highly differentiated system with a diverse range of institutions catering to a larger portion of the age cohort. The 2005 UNESCO World Education Indicators showed that tertiary education was the fastest growing education sector, with enrolment growing by 77 per cent in an eight-year period in World Education Indicators (WEI)[1] countries.

A concomitant feature of this worldwide expansion of higher education has been the changing nature of institution types through a process of differentiation. As institutions proliferate to meet the growing demand, there occurs vertical differentiation through which institutions carve out their niche in the system, whether as degree granting only, degree granting with the conduct of research, professional schools, programmes with a technical/vocational focus or associate degree granting, as in the case of community colleges. Horizontal differentiation has also occurred simultaneously with vertical differentiation as, driven by the increasing demand for higher education, new institutions, more often than not operated by private providers, emerge offering parallel programmes to those already in existence.

Two results of this expanded and differentiated system have been (1) the need for collaboration and partnership among the various institution types that now make up the sector, and (2) an increasing number of pathways into higher education. The 1998 UNESCO Declaration addressed the need for partnerships and alliances among institutions based on common interests and mutual respect, and noted that higher education institutions need to work

towards a seamless system of education. In the United States, for example, all American states now have some kind of coordinating body responsible for integrating programmes through collaboration, cooperation and coordination between and among two-year and four-year colleges and universities. This has developed largely out of a concern for improvement in the educational system. It was generally felt that a course of study formulated with the joint involvement of all participating institutions would have a clearer vision, a more thorough inventory of desired student competencies and a greater likelihood of success than a curriculum developed without collaboration (Robertson and Frier 1996). Similar trends towards collaboration and articulation are also evident among higher education institutions in the United Kingdom. A 2003 report of the Higher Education Funding Council of England recorded a wide range of partnerships and collaboration within and across institution types and embracing issues of efficiency and quality as well as access and accessibility. While many of these UK partnerships have their origins in collaborative work begun several decades ago, many such associations have emerged in response to more recent internal and external drivers.

In Jamaica, the 1991 Sherlock Report recommended that Jamaican higher education should take into account a multi-tracked system that allows institutions and individuals to follow different paths in an integrated and unified higher education system. The report recommended collaborative arrangements with institutions in which programmes are articulated to allow students to receive full credit when they move from one institution to another. There has been the growing expectation that the regional university, The University of the West Indies (UWI), should play a major role in bringing about a meaningfully articulated system, which led to the establishment of the Tertiary Level Institutions Unit in 1996. The unit was given responsibility for assisting in the development of articulation arrangements between the UWI and tertiary education institutions in the region, and this commitment to collaboration was affirmed in the university's 1997–2002 strategic plan.

There have been several models of partnership between UWI and other regional institutions which demonstrate both horizontal and vertical articulation (TLIU 2002), among them (1) an affiliation relationship in which the institution partnering with UWI teaches degrees not offered by the university

and UWI grants the degree; (2) devolvement or franchising of lower-level courses to partnering tertiary institutions; and (3) articulation between a UWI degree and a diploma or associate degree. Such an arrangement exists between the UWI and several community colleges where holders associate degrees from these colleges are granted full matriculation into UWI bachelor's programmes or, having earned an agreed grade point average or above, are eligible for exemptions from identified year 1 courses.

The transition from elite to mass higher education and the consequent expectation that this movement will result in increased access have implications for admission standards. With students converging on institutions from a range of education experiences, higher education institutions have had to take a new look at non-traditional qualifications and modify their matriculation policies in order to respond to demand and to realize national and regional targets. Students from non-traditional sources are competing for places in the higher education system with those educated through the more traditional avenues. A 2003 study carried by UWI's Tertiary Level Institutions Unit identified twenty-six pathways used to gain entry into tertiary education.

With the focus on access, there is also the underlying question of whether quantity has compromised the quality higher of education. Coles (1998) suggests that where two or more qualifications are used for the same purpose, it is useful to measure the extent to which they are achieving equivalent outcomes. Robotham (2000), discussing this quantity/quality dilemma, stresses the need for the UWI educational experience to foster qualities in our students that fulfil the needs of society and explains that the realization of this need is dependent on the quality of students entering the institution. This paper, therefore, looks at the performance of students who have used the associate degree in business studies offered by Jamaican community colleges as a pathway to the UWI.

Robotham (2000) suggests that the traditional high schools are no longer the main feeder source for the UWI; rather, community colleges are a competing source. As indicated earlier, through the Tertiary Level Institutions Unit, articulation arrangements have been established between UWI and community colleges across the region through which the ASc is accepted for normal matriculation. This credential demonstrates both the new partnering

relationships between tertiary/higher education institutions and the new pathways to university education that have emerged during the last decade or so. Of twenty-six credentials used to access tertiary education in the English-speaking Caribbean, the ASc has been identified as the fifth most used, while it is the third most frequently used for entry to UWI (Roberts and Brissett 2003). The associate degree in business studies used in this study is offered by Jamaican community colleges under the auspices of the Council of Community Colleges of Jamaica, the coordinating organization for all government-funded community colleges. It was first offered by Jamaican community colleges in 1991. Graduates of the programme have been accepted in UWI's Faculty of Social Sciences on an experimental basis since 1994 and articulation arrangements were formalized in May 1998 (TLIU 1998).

Using data from the UWI's Student Records Unit, a comparison was drawn between UWI students who had used the ASc in business studies for admission and their counterparts from community colleges and high schools who had used the General Certificate in Education at the advanced level (GCE A level) in order to assess the performance of ASc holders at UWI. Comparisons were drawn between (1) the number of credits which were attempted, (2) the number of credits completed and (3) the grade point average (GPA) achieved in the first semester of the first year of study at UWI. This data spanned a six-year period from 1999 to 2004 and included the total population of first-year UWI students who had entered the Faculty of Social Sciences using the ASc in business studies as matriculation qualification (N = 56) and a random sample of sixty students each from the group of students who entered from community colleges and high schools, using the Caribbean Advanced Proficiency Examination (CAPE) and/or the GCE A level. Data were organized according to enrolment status (whether full time or part time) and were analysed through

- descriptive data (that is, mean, mode, minimum and maximum, standard deviation and graphs were used to show the distribution of scores) and
- ANOVAs to determine whether there was any significant difference between the means of holders of ASc and of CAPE/GCE A levels from community colleges and high schools in terms of credits attempted, credits completed and GPA.

Credits Attempted

Part-Time Students

The data set out in Table 1 show that part-time students holding the ASc attempted a mean average of 8.49 credits in the first semester of enrolment at UWI. The majority of students (82.9 per cent) had registered for 9 credits. Similar data was evident for CAPE/A-level students from community colleges. These students had attempted on average 8.40 credits with 80 per cent of this group registering for 9 credits. CAPE/A-level students from high schools had attempted on average 8.20. In this group 73.3 per cent had registered for 9 credits in this first semester. Across all three groups, on average, three quarters of all part-time students had registered for the maximum number of credits allowed them by the faculty, and none had registered for fewer than 6 credits.

Full-Time Students

All full-time students were registered for either 12 or 15 credits for the first semester. Those holding the associate degree had registered for a mean average of 13.43 credits. There were 52.4 per cent registered for 12 credits and 47.6 per cent for 15 credits. Full-time students from community colleges with A levels had attempted an average of 14.16 credits; here 72 per cent had registered for 15 credits while the remaining 28 per cent had registered for 12 credits. The A-level holders from high schools had attempted on average 14.20 credits. This group had the highest percentage (73 per cent) registered for 15 credits. Among full-time students, therefore, holders of the ASc tended to have registered for fewer credits than their A-level counterparts. It should be noted that while over 70 per cent of A-level students had registered for 15 credits, only 47.6 per cent of ASc students had registered for a similar number (Table 1).

Table 1. Attempted Credits – Semester 1, UWI

	Part-time							Full-time						
Qualification	**n**	**Mean**	**SD**	**Min**	**Max**	**Credits Attempted by (%)**		**n**	**Mean**	**SD**	**Min**	**Max**	**Credits Attempted by (%)**	
						6	9						12	15
ASc	35	8.49	1.15	6	9	17.1	82.9	21	13.43	1.54	12	15	52.4	47.6
A levels Community College	10	8.40	1.27	6	9	20.0	80.0	50	14.16	1.36	12	15	16.7	83.3
A levels High Schools	15	8.20	1.37	6	9	26.7	73.3	45	14.20	1.34	12	15	26.7	73.3

Credits Completed

Part-Time Students

In this first semester, part-time students holding the ASc degree completed a mean average of 6.77 credits. The minimum number of credits completed by this group was 0, and the maximum 9. Here 82.8 per cent completed 6 or 9 credits, the majority (51.4 per cent) successfully completing the higher number. Holders of CAPE/A levels gained at community colleges completed on average 6.60 credits. In this group 90 per cent had successfully completed 6 or 9 credits. CAPE/A-level holders who had attended high schools completed on average 6.20 credits with 80 per cent completing 6 or 9 earned credits (Table 2). All three groups had between 80 per cent and 90 per cent completing between 6 and 9 credits. However, a larger percentage of ASc holders (51.4 per cent) had completed all 9 credits attempted than had the other two groups.

Full-Time Students

Full-time ASc students successfully completed a mean of 11.14 credits. The minimum was 0 and the maximum 15 credits. In this group, the frequency distribution showed that 66.6 per cent of the group achieved at least 12 credits. The community college students holding CAPE/A levels completed a mean average of 12.24 earned credits. This group had a minimum of 3 and a maximum of 15 earned credits with 78 per cent successfully completing at least 12 credits. The third group, CAPE/A-level holders from high schools, had a mean average of 12.53 credits completed. They had a minimum of 3 completed credits and a maximum of 15; 80 per cent had successfully completed 12 or more credits. With a standard deviation of 4.15, the credit completion rate of holders of ASc showed greatest variability. Here, also, while in all three groups the majority of students had successfully completed 12 credits, the holders of ASc did have a lower completion average (11.14) and a lower percentage (33.3 per cent) successfully completing all 15 credits attempted than either the CAPE/A-level holders from community colleges

Table 2. Credits Completed – Semester 1, UWI

Qualification	Part-time n	Mean	SD	Min	Max	Credits Attempted by (%)					
						0	3	6	9		
ASc	35	6.77	2.85	0	9	8.6	8.6	31.4	51.4		
A levels Community College	10	6.60	2.76	0	9	10.0	0	50.0	40.0		
A levels High School	15	6.20	2.65	0	9	6.7	13.3	46.7	33.3		
Qualification	**Full-time n**	**Mean**	**SD**	**Min**	**Max**	**Credits Attempted by (%)**					
						0	3	6	9	12	15
ASc	21	11.14	4.15	0	15	4.8	4.8	4.8	19.0	33.3	33.3
A levels Community College	50	12.24	2.89	3	15	0	4.0	0	18.0	40.0	38.0
A levels High School	45	12.53	2.95	3	15	0	2.2	4.4	13.3	33.3	46.7

(average completion rate: 12.24 and 38 per cent completing 15 credits) and high school graduates (average completion rate of 11.53 and 46.7 per cent completing 15 credits).

Grade Point Average

Part-Time Students

Regarding students' GPA, ASc part-time students had a mean average GPA of 2.33 with a minimum GPA of .0 and a maximum of 4.0. CAPE/A-level students from the community colleges had a mean average GPA of 2.42 with a range of .0 to 3.8. Their counterparts from high school had an average GPA of 2.35 and minimum and maximum GPAs of .0 and 4.0 respectively (Table 3).

Full-Time Students

Full-time ASc students achieved a mean average GPA of 2.17. Their GPA results ranged from .0 to 3.6. Of the CAPE/A-level students, those from community colleges had a mean average GPA of 2.43 while CAPE/A-level student from high schools had a GPA average of 2.53. Both part-time and full-time ASc holders tended to have slightly lower average GPAs than did their CAPE/A-level peers.

Table 3. Grade Point Averages – Semester 1, UWI

Qualification	Part-time					Full-time				
	n	Mean	SD	Min	Max	n	Mean	SD	Min	Max
ASc	35	2.33	1.21	.0	4.0	21	2.17	1.09	.0	3.6
A levels Community College	10	2.35	1.10	.0	4.0	50	2.43	77	.4	3.9
A levels High School	15	2.35	1.10	.0	4.0	45	2.53	.78	.3	3.8

Comparison of Means

Notwithstanding the differences highlighted above, when the performance of the three groups was analysed using a one-way ANOVA (Table 4), the results showed that the differences between the performance of the three groups with respect to the number of credits attempted in the first semester of registration, the number of earned credits and the achieved GPA were not statistically significant among either part-time or full-time students. Further, multiple comparisons made through post hoc tests revealed no statistical differences when ASc results were paired with the performance of either CAPE/A-level holders from the community colleges or those from high schools.

Indeed, the data on students in their first semester at UWI showed that holders of the associate degree tended, on average, to perform at comparable levels with the comparison CAPE/A-level groups. It should be noted, however, that among both part-time and full-time students, there was greater variance in the number of credits completed by holders of the ASc, and particularly so for the full-time group, which had a standard deviation of 4.15 in contrast to the two CAPE/A-level groups, which had standard deviations of 2.89 and 2.95. Despite this, the comparable performance of graduates from the ASc programme who have transferred to UWI with that of their CAPE/GCE A-level counterparts suggests that the qualification is a credible alternative to CAPE and GCE A levels for matriculation into UWI.

While the data in this study relates specifically to the ASc in business studies offered by Jamaican community colleges, the results have relevance for

Table 4. ANOVA Results

	Full-time Students		Part-time Students	
	F	P	F	P
Credits Attempted	2.53	.08	.27	.75
Credits Completed	1.41	.25	.18	.84
Grade Point Average	1.33	.27	.02	.98

associate degrees in other subject areas from community colleges across the region that enjoy articulation arrangements with UWI. All such programmes would have been subject to a standard assessment procedure applied by the Tertiary Level Institutions Unit with equivalent rigour as a pre-condition for the establishment of articulation arrangements. It would therefore be reasonable to expect similar results from other ASc programmes.

The partnership between UWI and the region's community colleges is an important vehicle for widened access to higher education. Through this relationship, the mandate given to community colleges to develop alternative but equivalent qualifications to the GCE A-level examinations (Sherlock 1991; Ministry of Education 2000) is being realized and another pathway to higher education is being established.

Note

1. World Education Indicators are a set of common definitions used for valid international comparisons by a number of countries from Asia, the Middle East, and Latin America and the Caribbean, including Jamaica.

References

Coles, M. 1998. Do advanced science qualifications prepare students for employment and higher education? *Research in Science and Technological Education* 16: 53–56.

Higher Education Funding Council for England. 2003. Supporting higher education in further education colleges. http://www.hefce.ac.uk/pubs/hefce/2003. Accessed 14 November 2006.

Ministry of Education and Culture. Policy Analysis and Research Unit. 2000. *Increasing Access to Tertiary Education Through Community Colleges.* Kingston: Ministry of Education and Culture.

Roberts, V., and N. Brissett. 2003. *Pathways to Tertiary Education in the English-Speaking Caribbean.* Bridgetown: Tertiary Level Institutions Unit, University of the West Indies.

Robertson, P.F., and T. Frier. 1996. The role of the state in transfer and articulation. In *Transfer and Articulation: Improving Policies to Meet New Needs,* ed. T. Rifkin, 15–24. San Francisco: Jossey-Bass.

Robotham, D. 2000. Changing a university: Reconciling quantity and quality – The case of the University of the West Indies. In *Higher Education in the Caribbean: Past, Present and Future Directions,* ed. G.D. Howe, 237–50. Kingston: University of the West Indies Press.

Sherlock, P. 1991. Restructuring tertiary education in Jamaica: Principles and proposals. Report to Ministry of Education, Jamaica.

Tertiary Level Institutions Unit (TLIU). 1998. *Report on Assessment of Associate Degrees in Business Studies by the Faculty of Social Sciences University of the West Indies and the Council of Community Colleges of Jamaica.* Kingston: University of the West Indies.

———. 2002. *The Associate Degree in the Caribbean with Particular Reference to the OECS.* Bridgetown: University of the West Indies.

UNESCO. 1998. World declaration on higher education for the twenty-first century: Vision and action. http://www.unesco.org/education. Accessed 14 November 2006.

Information and Communications Technology in Professional Development of Teacher Educators and Teachers

HYACINTH EVANS

The first institutions of higher education in Jamaica were established in the early nineteenth century and focused on the preparation of teachers and ministers religion (Braithwaite 1958; Evans and Burke 2006). Since these early beginnings, several developments in higher education have resulted in a sector that is growing in number and diversity. Today tertiary/higher education is more available to more persons as new institutions have been established, and there have emerged a wide variety of articulations, accreditations, and affiliation and franchising arrangements linking colleges with universities (Miller 2000).

The teachers' colleges have also experienced a growth in number and type over the past 160 years since the first college was established in 1835. The qualifications of the staff of the colleges have changed with the introduction of new programmes, and changes in the entry qualifications of candidates. For most of their history, the colleges had required that lecturers have at least a bachelor's degree as well as professional qualifications and teaching experience, with exceptions made for the practical and technical areas. As late as 1970, however, almost one third of the staff of the colleges lacked an undergraduate degree (Day 1972, 491). Recent changes in the teacher education programme and related changes to the college-leaving diploma have required lecturers to

have a higher level of subject matter and professional knowledge. A recent Ministry of Education regulation has mandated that all lecturers should have at least a master's degree. A survey of college lecturers conducted three years ago revealed that 88 per cent of lecturers have at least a master's degree or are enrolled in a master's programme (Evans and Davis-Morrison 2005). Thus college lecturers, for the most part, now possess the requisite initial preparation.

At the same time, however, there have been new and evolving perspectives on teaching, teacher education, and what it takes to be a professional teacher and teacher educator. Teacher professionalism no longer implies autonomy and ability to work on one's own exclusively but includes collegiality and the building of strong collaborative cultures around subject matter knowledge and the problems of practice (Day 2002). The explosion of knowledge and changing views of knowledge as contextualized and conditional rather than fixed and unchanging also have implications for teachers' and teacher educators' subject matter knowledge and their ability to share that knowledge with other teachers and to create contextualized knowledge about teaching and student learning. These developments underscore even more starkly the fact that the initial preparation of teachers and teacher educators has to be seen as simply starting points for the professional, and that the continuing professional development of teachers and teacher educators must play a more prominent role in the discourse on teaching and teacher education.

Although the need for the continuing professional development of teachers and teacher educators is accepted by many, there has, at the same time, been changing views on what constitutes effective professional development. Traditionally, teachers have attended workshops, seminars, courses and even full formal programmes provided by experts or university staff. But the disadvantages of this model have been widely recognized. For example, it is acknowledged that workshop leaders are generally knowledgeable in some areas of content or methodology, but not in all areas in which teachers need some form of development. Face-to-face sessions are usually constrained by time, which often leads to professional development that is not fully absorbed (Capper 2003). And this model does not effectively address the new demands and the new priorities of teaching and teacher education (Feiman-Nemser 2001; Hawley and Valli 1999).

There is a new consensus on teacher professional development which has been influenced by various developments in teaching and education, including the standards movement and the focus on student learning. Quality professional development has the following features:

- is embedded in the job of teaching and can be tailored to the needs of students or student teachers
- revolves around local academic content, curriculum and standards
- helps teachers and teacher educators build their content knowledge and understanding of what is important for students to learn and how that content can be represented to students
- allows teachers and teacher educators to collaborate in developing their understanding of their practice and the learning of their students
- provides iterative opportunities for teachers to observe exemplary practice, and to reflect on and discuss that practice
- is based on a constructivist approach to teaching with a focus on teaching for understanding and active, learner-centred, collaborative strategies
- is cumulative and sustained, involving teachers and teacher educators in sustained efforts to question, debate and integrate new ideas into their classroom practice (Ball and Cohen 1999; Capper 2003; Cochran-Smith and Lytle 1999; Fullan 2001; Hawley and Valli 1999; Wilson and Berne 1999)

Information and communications technology (ICT) offers the capability to address several of the problems experienced in the provision of continuing teacher professional development outlined earlier. Capper (2003) outlines the many advantages of these new technologies for professional development of teachers:

- give teachers any anytime anywhere access to learning
- provide teachers with opportunities to view numerous instances of teaching practice and to engage in reflective, analytic learning activities and discussions around specific teaching attributes and practices
- allow teachers to access the instructional products related to the teaching practice, such as student work, and teachers' lesson plans and assessment instruments

- provide access to a broad array of teaching and learning resources across subject areas and often keyed to a specific curriculum
- allow teachers to participate in learning communities, to share ideas, analyses, reflection, and resources with their peers and other experts throughout the city, country or even the world
- provide sustained, ongoing opportunities for teacher development
- can involve a range of individuals and groups with different types of expertise that can contribute to teacher development, such as university faculty, subject experts, researchers, curriculum specialists and members of professional subject associations
- provide uniform training quality with the flexibility of local customization
- can be tailored to specific needs and curriculum of an education system
- may become more cost effective as use increases

These characteristics focus on developing practice within the context of practice. In addition, ICT can also be used to expand teachers' subject matter knowledge.

Traditionally, professional development that is not done face-to-face has been described as teaching and learning at a distance. The media available for such professional development include radio, correspondence, video recording and playback, online distance learning, and computers and the Internet (Perraton 1993; World Bank 2005). This paper will provide examples of ways in which two of these media – computers together with the Internet and online learning – can be used to enhance the professional development of teacher educators, recognizing that all these media are also applicable to the development of teachers.

Teacher Educators and Professional Development in Jamaica

We have seen that 88 per cent of teacher educators possess or are enrolled in a master's programme, which means that the majority have met the basic requirement for teaching at the college level. However, there is a need for them to continue to obtain further knowledge and understanding in subject matter knowledge, and subject-specific approaches to teaching. This is neces-

sary both because of the demand of the new professionalism and because modifications are always being made to the teacher education curriculum in response to new demands and new realities. For example, in 2001 the Joint Board of Teacher Education and the Institute of Education embarked on a reform of the teacher education programme in the teachers' colleges which was necessitated by changes to the primary and secondary curriculum. These curricular reforms at the primary and secondary levels were introduced in order to improve students' learning and achievement and they were based on new conceptions of teaching and learning, which required a radical reform of the teacher education programme that prepares teachers for those classrooms. Teacher educators had to learn these new conceptions, new approaches to teaching and learning, and new ways of teaching at the college level. Although in this case, the professional development carried out with the college lecturers took the form of traditional face-to-face sessions (Evans 2006), it could have been done with the method of online learning, as described below.

Online Distance Learning for Professional Development

Online learning has been used in many parts of the world as a means for teacher professional development. This medium for professional development requires access to computers and an Internet connection, as well as the skills to use them. Online learning can be used as a stand-alone activity or as follow-up support to a face-to-face activity. The potential of online professional development lies in part with its ability to make "multi-channel instruction" with respect to content and interaction with peers and mentors (World Bank 2005). Its major strengths lie in the fact that teachers can interact with experts or with other teachers (peers) and in its use of written communication (e-mail, discussion groups). Online development can prompt reflection on the activity as well as on one's teaching, can support a range of learning styles, and has the potential to reach a large group of teachers and teacher educators while they are still employed (World Bank 2005).

Most software used for online learning, such as the Virtual U programme used by the Institute of Education at The University of the West Indies,

Mona, provides access to learning resources that can be used with students. Virtual U provides asynchronous communication, which means that users can access the programme at any time without the need for all persons to log on simultaneously. They simply post questions based on readings or resources provided or found on the Internet, and/or respond to the questions and issues posed by other users or by the leader.

Online distance learning for professional development can take the form of three models: (1) self-directed online professional development, (2) online courses for professional development, and (3) online communities. Self-directed opportunities would arise where the computer and access to the Internet are made available to the staff of a college or a school, and each lecturer or teacher receives some basic orientation to its potential and its use. Each teacher educator would use these resources for self-identified learning needs. The second model – online courses for professional development – is evident in courses offered by the Institute of Education, which offers formal postgraduate courses as part of the School of Education's graduate programme, and short-term modular courses designed to enhance professional development. This second model can also be used to provide follow-up activities to a face-to-face workshop where teachers and teacher educators need to learn subject matter or pedagogical content knowledge related to a curriculum reform, such as that initiated by the Joint Board of Teacher Education in 2001. Such follow-up activities are a critical part of learning about teaching, since skills have to be implemented in classrooms that differ in significant ways. The third model – online communities – can be used by a group of college teachers at one or more colleges to discuss the issues related to a new curriculum, to share success stories and ideas about teaching the curriculum, or to provide references that may be useful to colleagues.

While the focus in this article is on the professional development of teacher educators, online learning can be used for the development of teachers, education officers and other resource personnel. It can be used to support the learning needs of those who are responsible for implementing such critical reforms as the new literacy programme developed by the Ministry of Education, which requires education officers and teachers to master new knowledge and teaching approaches related to the teaching of literacy. With

the recent decision on the part of the Ministry of Education to require that all teachers have a first degree, there will be an urgent need to upgrade teachers in the system to that level. Online learning provides a viable medium for such instruction.

Internationally, online distance learning has been used in several countries for the continuing education of teachers and teacher educators. Many of these programmes have been designed by universities such as Harvard and by organizations such as the World Bank. Online courses and activities vary in their structure and goals. They can address specific curricula and groups of teachers and teacher educators, such as the Connect-ED courses in Uganda (see http://www.connected.ac.ug), or they can help teachers and teacher educators build an understanding of general pedagogical concepts and techniques, as in the case of Harvard University's WIDE World (see http://wideworld.pz.harvard.edu) (World Bank 2005). While these courses are specifically designed for teachers, the facility can also be used for teacher educators and others in the education system.

Shortcomings of Online Learning

Although online learning has many advantages and the medium has many strengths, there are some weaknesses associated with this approach. The first is that its provision is dependent on regular access to computers and the Internet, as well as regular and reliable availability of electricity. While the former exists for all teachers' colleges in Jamaica, the last mentioned can be a source of problems for the end user. Users also need to have computer skills, and online mentoring by the leader of the course or the group may be less effective than face-to-face mentoring. However, such shortcomings can be overcome once the user and the mentor become familiar with the technology and find creative ways to address the weaknesses. Finally, multimedia and interactive materials require high bandwidth and powerful hardware which may not be available to all users. In such cases, users have to use the facilities at a centre, such as a college or university, and this reduces convenience.

Computers and the Internet

Computers and the Internet can benefit all parts of the education system. When used for the professional development of teacher educators, they can increase subject matter knowledge as well as subject-specific pedagogical skills – two areas in which teacher educators have an ongoing need for professional development. They combine text, audio, animation and interactivity. The combination of computers and the Internet provides a flexible and powerful tool that teacher educators and teachers can use to access pedagogical resources on a timely basis and to develop materials for use in classrooms (World Bank 2005). Computers and the Internet enable communication between lecturers at different colleges, as well as teachers in schools or the university. In the case of a curriculum reform initiative, such as the one initiated by the Joint Board of Teacher Education in 2001, computers and the Internet can be used in conjunction with videos and DVDs to allow teacher educators to master new pedagogies.

Computers and the Internet have been used internationally to enhance teachers' knowledge and skills either alone or in conjunction with other media, such as radio, television or videos and DVDs. Examples of these include the Shoma professional development project of South Africa, which was designed to provide professional development for rural teachers in order to prepare them for a new curriculum. This project was used in conjunction with videos for the purpose of allowing teachers to master new knowledge and new teaching skills. Because not all schools were equipped with computers and an Internet connection, teachers were required to go to centres where they would spend some time in three rooms for about two and a half hours each week. In the first room, they watched a ten- to twelve-minute video and discussed its contents. In the second room they completed computer-based lessons related to the themes covered in the video. In the third room, they prepared lesson plans that incorporated what they had learned in the video (Capper 2002).

Other examples of the use of online learning to support professional development include LessonLab (http://www.LessonLab.com), which is a "sophisticated, video- and online-based learning system (platform) to support the

analysis of teachers' classroom practice . . . LessonLab is an online program developed to help teachers improve their teaching by seeing videos of exemplary teachers and by reflecting on what they see other teachers do, analyzing that teaching and working with others to improve their own teaching" (Capper 2003, 4). Resources related to each lesson are embedded in each lesson. A similar programme is provided by Teachscape (http://www.teachscape.com), which is designed to provide teachers with observations of exemplary teachers in action.

The limitations of the use of computers and the Internet as a means of professional development relate mainly to the hardware. It is highly dependent on infrastructure – electrical, telecommunications, roads (for repairs) and human resources for maintenance. Hardware and software lose their value and utility frequently (roughly every three years) and so replacement costs have to be built in. In addition, all users have to be skilled in the use of the technology and those who lack the skills have to be trained.

ICT and Learning Communities

We saw earlier where one feature of effective professional development is the creation of communities of teachers that allow them to share with and learn from others. ICT can be used to promote and support such learning communities. And since ICT such as online discussions can facilitate the construction of new understandings and can be used to examine the specifics of one's practice, a learning community formed around common interests and concerns has the potential to meet most of the criteria for effective professional development outlined earlier. The content of professional development will be determined by that learning community and what the teacher educators deem to be important to them. Initially, a learning community is best established face-to-face since the elements of a community – shared knowledge, understandings and trust – are best developed in that manner. However, online discussions can be used to maintain and support that community.

Conclusion

ICT has many features that can help teacher educators to put into practice the criteria for quality professional development while at the same time addressing the many disadvantages of the old model of professional development. It allows professional development to be localized to a particular school or college and thus can be job embedded; be focused on a local college's curriculum; allow teacher educators to collaborate and create learning communities; provide opportunities for teachers to observe teaching practice provided by their colleagues; and allow teacher educators to be more involved in identifying their own needs – questioning, debating and searching for answers to the questions that they face. Finally, ICT allows professional development activities to be sustained and cumulative over time.

References

Ball, D., and D. Cohen. 1999. Developing practice, developing practioners: Toward a practice-based theory of professional development. In *Teaching as the Learning Profession: Handbook of Policy and Practice,* ed. L. Darling-Hammond and G. Sykes. San Francisco: Jossey Bass.

Braithwaite, L. 1958. The development of higher education in the British West Indies. *Social and Economic Studies* 7, no. 1: 1–64.

Capper, J. 2002. *Shoma: A Private Sector Contribution to South Africa's Teacher Development – A Case Study.* Washington, DC: World Bank.

———. 2003. Uses of technology to support high quality teacher professional development. Paper prepared for the World Bank Info Dev Project. Washington, DC.

Cochran-Smith, M., and S. Lytle. 1999. Relationships of knowledge and practice: Teacher learning in communities. In *Review of Research in Education* 24: 249–306.

Day, C. 2002. School reform and transitions in teacher professionalism and identity. *International Journal of Educational Research* 37, no. 8: 677–92.

Day, G. 1972. An assessment of the adequacy of teacher education in Jamaica in relation to educational since 1938. MA thesis, University of the West Indies, Mona.

Evans, H. 2006. Changing the education programme in teacher education: The challenges of creating constructivist classrooms. In *Broadening the Vision for Teacher Education in the Caribbean,* Institute of Education Publication Series, vol. 2, ed. R. Davies and L. Down. Kingston: Institute of Education, University of the West Indies.

Evans, H., and O. Burke. 2006. National report on higher education in Jamaica. Final report to UNESCO. Kingston, Jamaica.

Evans, H., and V. Davis-Morrison. 2005. *Survey of Teachers College Lecturers.* Kingston: University of the West Indies.

Feiman-Nemser, S. 2001. From preparation to practice: Designing a continuum to strengthen and sustain teaching. *Teachers College Record* 103, no. 6: 1013–55.

Fullan, M. 2001. *The New Meaning of Educational Change.* 3rd edition. New York: Teachers College Press.

Hawley, W., and L. Valli. 1999. The essentials of effective professional development: A new consensus. In *Teaching as the Learning Profession: Handbook of Policy and Practice,* ed. L. Darling-Hammond and G. Sykes. San Francisco: Jossey Bass.

Miller, E. 2000. Access to tertiary education in the 1990s. In *Higher Education in the Caribbean: Past, Present and Future Directions,* ed. G. Howe. Mona: University of the West Indies Press.

Perraton, H. 1993. *Distance Education for Teacher Training.* London: Routledge.

Wilson, S., and J. Berne. 1999. Teacher learning and the acquisition of professional knowledge: An examination of research on contemporary professional development. *Review of Research in Education* 24: 173–210.

World Bank. 2005. Using Technology to train teachers: Appropriate uses of ICTs for teacher professional development. Paper prepared for the World Bank Info Dev Project. Washington, DC.

The Role of the Library in the New Educational Environment at The UWI, Mona

EVADNE MCLEAN

Higher educational institutions throughout the world, including The University of the West Indies (UWI), are being forced to reinvent themselves to better meet the changing needs of the twenty-first century's knowledge-based society. Duderstadt describes the knowledge-based society as one in which the production of wealth is dependent on the creation and application of knowledge. The key strategic resource is knowledge itself, that is, educated people and their ideas. Within the knowledge-driven society, more people seek education as the hope for a better future, the gateway to good jobs and careers and to meaningful lives. Society therefore depends on social institutions such as the university to create knowledge, educate people and provide those people with learning resources throughout their lives.

The changes occurring in higher educational institutions are being driven by several factors, including the evolving information and communications technologies, the effects of globalization, and diminishing finances. Libraries are critical to the academic progress of universities and they too are being propelled into change as a result of the effects of these same factors. The evolving communications technologies, for example, are impacting the way academic libraries acquire, manage and make accessible their services and resources as well as the way users access and employ these services and resources.

However, changing from old practices and structures in order to satisfy new needs and expectations does not happen easily in any institution. The process requires change agents and the commitment of internal and external stakeholders who are willing to align themselves with the vision and the goals of the institution so that changes can be realized without compromising high quality and standards.

This paper describes strategies being used by the Mona campus to achieve sustainability in the new higher-learning environment. It also looks at some of the factors driving change in academic libraries and the Library's role in the thrust to make the Mona campus truly relevant in the higher education landscape of the twenty-first century.

Towards a Twenty-first Century Learning Institution

The emergence of computer and information technologies to facilitate and enhance teaching and learning as well as administration is a positive development in higher education globally. Despite the advantages the technology affords, however, some institutions, including the UWI, were initially slow to adopt them into their delivery system. The need for change and the desire to be relevant and competitive have led to the adoption of the emerging technologies in order to ensure a more sustainable future. Professor Hall, former principal of UWI Mona, stated, "The most noticeable and dramatic innovation on the UWI Mona Campus has been the embracing of information and communications technology to improve teaching and learning as well as administration" (UWI 2001, 28). The campus has an information technology (IT) plan to strengthen its IT capabilities in administration, library development, infrastructure and education technology. Many developments have taken place as a result. For example, networked computers are located in the libraries, faculty-based computer laboratories and the halls of residence, while wireless connection to the network is available various places, including the Library, several lecture theatres and in the area of the Faculty of Social Sciences. All registered students are provided with email accounts, full-service Internet access from the campus and dial-up Internet services using a cost-

recovery model from off-campus. Several lecture theatres and teaching spaces have multimedia equipment. The Banner Students system facilitates Web enquiry for students, staff and alumni and the Pipeline system enables convenient communication among students, academics, staff and on-campus organizations (UWI 2005, 22).

A less positive development, especially for universities in developing countries, has been the impact of globalization. Altbach (2002, 29) describes these effects when he says:

> The elements of globalization in higher education are widespread and multifaceted. They include the flows of students across borders. It is estimated that more than 1.6 million students now study outside of their home countries with more than 547,000 studying in the United States. International branch and off shore campuses now dot the landscape, especially in developing and middle-income countries.

UWI no longer enjoys a monopoly over university education in the region. Today, the higher education landscape in which it operates has become very competitive. In Jamaica, for example, there are four new universities and a host of tertiary level institutions, many of which collaborate with offshore universities to offer higher education programmes. These developments mean that the UWI must therefore compete for students, faculty and resources.

In the face of this growing competition and the need for higher enrolments at both the undergraduate and postgraduate levels, the university has strengthened liaisons locally with schools so that their graduates will choose the UWI as "the place to shine" and has developed strategic partnership with teachers' colleges and community colleges. It has also been recruiting students in the non-campus territories, especially the Bahamas and Belize.

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The UWI has identified distance education as one of its strategic focus areas to increase enrolment and to provide human resources for the region's development. To this end, it has improved its technological capability, facilities and offerings. Until recently, distance learning courses facilitated through University of the West Indies Distance Education Centre (UWIDEC) were delivered using a print package comprising a self-instructional text containing essential course content, readings and course guides. Audio conferencing and tutorials were supportive media. However, a shift to asynchronous delivery of distance education programmes using the Web as the preferred mode of delivery is gradually taking place. When this process is completed, UWIDEC's programme delivery will be more in line with the MA online programme and the special BEd Secondary (Distance) Project.

The Mona campus is enhancing its competitiveness by repositioning itself as an institution recognized for the strength of its research. It is placing special emphasis on research programmes of all types but particularly those of a multidisciplinary nature and those that will meet regional needs. Despite the competition for research grants, the campus has been able to attract significant funding because of its long tradition as a research institution. Research outputs are highlighted at the annual Research Day, the annual Mona Academic Conference, other conferences, workshops and symposia, articles published in scholarly journals as well as the Mona Online Research Database. The collaborative work of members of staff with organizations such as CARICOM and the United Nations is also important for promoting the image of the campus.

The creation of a student-centred campus is an imperative in a competitive academic learning environment since "the university of choice is the one that brings the greatest number of services to the student" (Rosenquist-Buhler 1996, 220). The Mona campus student body now enjoys a congenial atmosphere in which it can engage in academic and other pursuits. These include access to improved facilities, such as student housing, transportation, healthcare facilities, security, financial aid packages, as well as physical infrastructure (UWI 2003, 9). Students with special needs are not neglected. Walkways and entrances to buildings have been reconfigured to enable greater ease of movement and the Office of Special Student Services has been established to assist

these students in securing accommodation and specialized pieces of equipment. All students have opportunities for self-development through workshops, symposia, and leadership and mentorship programmes.

The twenty-first-century university in a knowledge-driven society must meet the students' need for many and varied services as well as their demand for an education more relevant to their personal lives and professional goals. It must also meet society's need for graduates who will create wealth and lead change. To this end, academic programmes at Mona are being reviewed to make them more learner-centred. Emes and Cleveland-Innes (2003, 47) note that learner-centred programmes create highly developed individuals, empowering them to continue creating learning experiences, digest current knowledge and create new knowledge within the programmes themselves. New courses in areas such as culture, tourism, heritage and the environment are being offered at both the undergraduate and postgraduate levels, giving more educational choices to students as well as meeting the human resource and developmental needs of the society.

However, academic programmes will meet students and society's expectations only if they are of high quality and are effectively and efficiently delivered. At Mona, the Instructional Development Unit and the Academic Quality Assurance Committee are ensuring that this happens. The former provides skills training for academic staff while the latter undertakes a periodic assessment of programmes for currency and relevance.

A difficult trend with which higher educational institutions must also cope is diminishing funding. Universities throughout the world are experiencing a substantial, steady and sustained decline in public funding as other needs claim an increasing share of the public purse (Lyall and Sell 2006). This reduction in funding to universities is occurring although the knowledge-driven society is demanding that people pursue higher educational opportunities. There is a significant increase in the number of persons of all ages, socio-economic levels, and full-time or part-time status accessing higher education. Lyall and Sell (2006) describe how universities are coping with reduced funding:

> Universities have scrambled to sustain access and quality by diversifying revenues, streamlining costs, and adopting technology. The result of all this activity

> has been a dramatic shift in the mix of revenue sources supporting today's public universities and, with it, a shift in the claims and constituencies to which university presidents, faculty and staff are responsive. At any public institutions, the contributions of students, alumni, and donors now exceed public support making these voices understandably louder and more compelling.

The Mona campus has identified its precarious funding position as one of the three major challenges it faces. For example, in 2004–2005 funding from the Government of Jamaica declined by 16.5 per cent (UWI 2005, 4). The university therefore had to cut departmental budgets. Faced with an uncertain financial future in the midst of rising costs and its commitment to good quality programmes, the Mona campus is reversing its weakening financial situation. Its strategies are income-generation ventures, prudent financial management, and new partnerships with corporate-sector entities to support research and economic development.

The editorial "UWI at Risk" in *YouWe* 5 (2000) describes UWI's multiple challenges as "the tightening of the grip around the throat by strange hands". It also notes that it is the university's "strategic response that will determine not only survival, but effective adaptation, transformation and emergence as a more viable force" (p. 2). Through its strategic response (*Strategic Plan 1997–2002* and *Strategic Plan 2002–2007*) to the issues facing it, the Mona campus is now better placed to maintain its position as the leader in tertiary education in the competitive higher education environment in the region. Its yearly increase in student enrolment is evidence of this. For example, the enrolment figure rose from 13,384 in 2003–2004 to 15,228 in 2005–2006 (*Official Statistics 2005–2006*). However, the higher education environment is dynamic, so the Mona campus has to be proactive to withstand the challenges which will become a way of life in the future.

Academic Libraries and the New Learning Environment

Academic libraries, for their part, are expected to contribute towards the success of learning, the effectiveness of research and the preparation of the clients of higher education for a dynamically advancing industrial/informa-

tion society (Owusu-Ansah 2001, 282). However, like their parent organizations, these libraries are faced with new challenges which are driving change. Information and communication technologies have brought significant changes to the information landscape and how the users access information. For example, digitization makes it possible for information to be delivered in electronic form. Many users are becoming hesitant to use print as they are of the view that all the information they require is to be found on the Internet. Users, both faculty and staff, are expecting libraries to provide "just in time" services that invariably require new technological expertise on the part of the Library. Public service librarians are expected to provide answers to questions about downloading and manipulating files and to provide assistance with software applications (Warnken 2004, 324).

Today's university students are diverse in their expectations, attitudes, and intellectual capacities and learning styles (Schroeder 2003, 55). However, they all need to be constantly trained and supported to access and use information in the electronic environment efficiently and effectively. This will require academic librarians to have new competencies and skills and wider subject specialization.

Users' awareness of what is possible is changing their expectations of libraries, therefore creating the need for new organizational structures to provide flexible and responsive information and library services (Drake 1993, 39). Traditional library processes and structures are grossly inadequate to respond in a timely manner to this rapidly changing technological environment (Nozero and Vaughn 2000, 421).

The Library must also be mindful of the competition for the provision of information that has been made possible by the changing global economy and information technology. Users of library services and resources now have myriad choices in providers. White (2006) advises that libraries can remain competitive by innovating their products and services and access to these products and services to make a positive impact on their users.

Economic difficulties in the country directly affect the growth of the Library, the services it is able to offer, its staffing levels, and strategic development. Tam and Robertson (2002) observe that "conflicts between budgetary constraints and the desired level of financial resources must lead to a move

towards providing services that will generate income and improve funding, as cost-effectiveness and efficiency become increasingly important to the library's survival".

Because of the various challenges, there is mounting pressure to change library services. However, there is little agreement among academic librarians on what must change and how the change will be implemented and the time line (Stoffle, Renauld and Veldof 1996, 213). While the necessary structural changes are being discussed extensively in the literature of library and information science, librarians must continue to serve the total user population as efficiently and effectively as they can.

In response to the changes in the learning environment at UWI Mona, the Library drafted its own strategic response: *Five-Year Strategic Plan 2002–2007.* This article will discuss the Library's activities under some of the headings set out in that plan.

Leverage Information Technology to Increase Institutional Effectiveness

The application of information and communications technologies to the university campus has enabled the Mona Library to respond to the challenges of the modern information environment and to improve access to information in support of the learning/teaching and research needs of the campus.

The automated circulation system introduced in 1996–1997 has improved circulation procedures while the Public Access Catalogue (OPAC) has given users more options to access the Library resources in a timelier manner.

Linden says, "The library's Website is the library" (2000, 99). Mona Library's Web page (http://www.mona.uwi.edu/library) is playing an important role in the provision of information resources for students, faculty, staff and alumni. It was launched in the 1999–2000 academic year and gives access to a range of international commercial and in-house databases, online journals, and the Library's OPAC. Useful information resources have been selected, organized and made easily accessible to the user from the Web page. Very important to students is the availability of past examination papers and these are accessible through the Web catalogue, which is reachable from the Web page.

Mona Electronic Reference and Information Centre (MERIC), which was opened on Research Day 1999, is the Library's computer-based research facility from which users can access all the Library's electronic resources as well as printed reference sources.

The electronic reference librarian oversees MERIC and offers guidance and the necessary technical support to students. Student assistants who are able to give the users help with word processing and minor computer difficulties also provide help.

The reference librarian in the Catalogue Hall deals with face-to-face and telephone requests from clients seeking information. This service complements those offered by MERIC. The Library would like to enhance reference services provided in the Catalogue Hall with an online chat-based reference service. This would enable users to chat with a reference librarian to get help in using electronic databases, locating information on the Web or in the catalogue, or with specific research questions. This service would be particularly helpful to distance learners.

The training room is equipped with a trainer's workstation, participants' workstations and a LCD projector, and is used for training faculty, other staff and students to access the OPAC, Internet resources, as well as to execute online database searches. It is also the place where librarians hone their pedagogical skills, since within the new learning environment it is necessary that each one becomes an effective teacher.

Reorganize and Expand Distance Education

The Library has been involved in library support for the students in the UWIDEC-facilitated courses since 1996 and it is its goal to give the distance learners resources and services that mirror those given to on-campus students. The person responsible for

- coordinating library services for this group is the distance librarian. In the absence of guidelines for the provision of distance library services for developing countries, including those of the Caribbean, the Mona Library has embraced the guidelines of the American Library Association

(http://www.ala.org). The latest guidelines were approved in 2004 and state:

> Access to adequate library services and resources is essential for the attainment of superior academic skills in post secondary education, regardless of where students, faculty, and programmes are located. Members of the distance learning community are entitled to library services and resources equivalent to those provided for students and faculty in traditional campus settings.

Each UWIDEC has a small collection of core texts that students can utilize to broaden and deepen the information in their course packs. Students can also request additional textbooks from the Mona Library as necessary. These are sent on a one-month loan to the sites so that all the students who require these texts can access them.

There is a distance learners' Web site that can be accessed at http://www.mona.uwi.edu/library/distance_learners.html or from the link on the Library's homepage. It provides useful information for distance learners and allows them access to the Library's electronic resources. In order for those in the distance programmes to fully exploit these resources, as well as to develop research skills, the distance librarian visits the sites and offers information literacy instructions as part of the FD10A foundation course. The classes help ensure that our off-campus students are getting services comparable to those offered to the on-campus students and that the former will graduate with the requisite skills to facilitate lifelong learning in this knowledge-based society. To ensue quick turnaround time to queries and requests, the Library has created a separate email address for UWIDEC students so that their correspondence is not delayed in the Library's general email service.

The creation of a virtual library through strengthening of the electronic resources available to distance learners from the Web page is now necessary since UWIDEC is embracing Web-based delivery. However, in order that students will have an input in the type of learning support they receive, the distance librarian plans to survey the UWIDEC students to ascertain their present information resource needs. On the basis of the findings, the necessary recommendations for appropriate support will be made to the Library.

Enhance the Research Profile and Productivity

The Library has played an important role in support and heightening awareness of the university's research activity and output. It has produced three bibliographies – *Research for Development: A Bibliography of Staff Publications,* volumes 1–3. Collectively they cover staff research output for the years 1993 to 2005. Simultaneous with the publication of volume 3, the Library coordinated the setting up of the Mona Online Research Database in conjunction with Mona Information Technology Services and the Human Resources Management Division. The database provides access to a variety of research information on present and former staff, including staff interests, staff publications and research funding.

Elevate UWI's International Standing

The value of the Library's West Indies and Special Collection to research on West Indian history and culture is internationally recognized. The number of reference queries received from overseas researchers, as well as the number of persons from different parts of the world who come, some regularly, to use the collection, attests to this. According to the *Departmental Report 1999–2000,* thirty-two foreign researchers visited during that academic year and several spent more than two weeks. The visitors were from as far away as Japan, Switzerland and Germany.

The West Indies and Special Collection was established in 1974 and brings together in one section a number of the Library's special and unique collections. It is the Library's premier collection, so it is constantly being reviewed and strengthened. The Library would like to further facilitate research by digitizing these collections, thereby making them accessible from the Web, but the cost involved is prohibitive.

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Student-Centredness

In keeping with the goal of student-centredness, the Library has sought to improve the quality of customer care by holding a series of training sessions for all categories of Library staff. These have served to lift staff awareness of the importance of excellence in customer care.

In a student-centred environment, it is important to have open dialogue with students in order to ascertain their needs and concerns so that the Library can take action. To this end, suggestion boxes have been introduced in the main and branch libraries. These boxes are cleared regularly and the responses to the students' numerous comments and suggestions are displayed on a notice board in the Library for the information of everyone.

Students are always lobbying for new services and for many years they have been requesting 24–7 opening. In response, the Library introduced an overnight reading room in 1998. It accommodates 140 persons and is opened every night of the week from 10:00 p.m. to 6:00 a.m. as well as Sundays and public holidays. There are twenty computers with printing facilities and there is wireless connection for students with laptops. Users also have access to databases and other electronic resources from the Library's Web site.

Provision is made for students with special needs. Those who are physically challenged can use the OPAC, which has been adjusted for their use. Unfortunately, there is no elevator access to the upper floors of the Library, so materials required by these students are brought to them by Library staff. Visually impaired students can access VISTAS (Visually Impaired Students Technology Assisted Services), a section of the Library that provides a quiet area for the visually challenged students to use JAWS (Job Access with Speech) software or the Kurzwell Reader, and also meet with human readers. There are also readers which use DAISY (Digital Access Information System) to allow the visually impaired reader to navigate the recorded book. They are also given a longer loan period for books borrowed from the Reserved Book Collection as well as a dedicated area with workstations to access the Internet and other electronic resources.

Postgraduate students enjoy their own reading room equipped with Internet facilities and various software. Literature relating to thesis writing and

presentation has been placed in the room. Librarians have been guiding these students in the proper citing of sources during the preparation of their theses.

In an effort to be more user-centric, the Library started a project to digitize and make accessible through the online catalogue photocopy material placed in the Reserved Book Collection by faculty. However, there are difficulties. Getting copyright clearance from UWI lectures for their work is easy but the cost of copyright clearance for overseas writers' works is prohibitive at this time. In addition there is the problem of locating many copyright owners.

Strengthening the Curriculum

"In any academic community, the Library plays a central support role in the educational program, and must be responsive to curriculum development, to group and individual learning needs, and to changes in teaching methods" (Popoola 1992, 164). The Library is therefore making considerable efforts to update its collection to make it relevant to the new academic programmes. The communication technologies have made it possible for the Library to offer its clients access to scholarly databases. One such is JSTOR which offers both multidisciplinary and discipline-specific collections. The Library has access to arts and sciences 1 and 2, business, and language and literature collections. Another is OCLC's First Search which provides access to several important databases in economics, arts, humanities and education. There is also access to electronic journals for which the Library has print subscription. For example, participation in OCLC's electronic collections (ECHO) service ensures Mona Library users online access to some of the print periodicals the Library holds.

Items that the Library does not own may be acquired through inter-library loan. This service is regularly accessed by postgraduates and faculty and to a lesser extent by undergraduates. The acquisition of the OCLC subsystem and ARIEL for inter-library loan has not only reduced the level of labour-intensive tasks and the document delivery time of items but has also made it easier to assess the status of loan requests.

The audiovisual material, housed in the West Indies and Special

Collections, has diversified the format of the Library's holdings. It is supporting new courses which rely on audiovisual material as well as catering to different learning styles.

The Library has also been updating its print collection and acquiring additional copies of prescribed texts to accommodate large classes occasioned by the increase in undergraduate enrolment. Liaison librarians are assigned to each department in order to, among other things, strengthen the communication link with faculty in the interest of curriculum support. They distribute information concerning new publications in the discipline and solicit suggestions for collection building.

Enhancing Learning and Teaching Effectiveness

"The provision of a good collection does not necessarily make for good library service. Collections are passive resources dependent on good staff to enliven them, to provide access and research support" (Popoola 1992, 167). This is why library-user education is necessary. In addition to orientation and Library tours, the Library offered a bibliographic instruction/library skills modules as a component of the UC120 course, Language, Exposition and Argument, until as recently as 2000. Students were given a lecture/presentation "Using Information Sources" as well as small group tutorials in which in-class exercise and practice using the catalogue, reference books and other sources were carried out.

Mona Information Literacy Unit (MILU) established in 2000–2001 has moved beyond bibliographic instruction to the teaching of information literacy skills which has a broader focus. More and more materials are becoming available in electronic format, so it is essential to teach clients the skills to identify their information needs, construct effective search strategies for the catalogue, journal databases and the World Wide Web, as well as how to navigate the plethora of database platforms and interfaces and to evaluate and use the results responsibly. Rockman (2002, 612) looks at the importance of these skills:

> The increasingly complex world in which we live contains an abundance of

> information choices and formats. Those individuals who are more knowledgeable about finding evaluating, comparing, selecting, organizing, integrating, managing, and conveying information to others effectively and efficiently are held in high esteem. These are the students, workers, citizens who are most successful at solving problems.

Each year MILU offers sessions in the use of the OPAC, database and Internet techniques, as well as a module entitled "Shaping Your Writing and Research" in the UC120, FD10A and the FD14A foundation courses. The module is aimed at teaching search strategies, finding relevant print and online sources, evaluating sources, and responsible use of information.

In the 2000–2001 academic year, the same year MILU was established, the Library staff presented a skit on the information-literate student. The occasion was a luncheon hosted by the Library which was attended by 150 faculty members. This led to a discussion which explored collaboration as a means of ensuring that students are exposed to critical higher-order skills. The interaction between faculty and Library has resulted in the presentation by the Library of a number of discipline-related modules at both the postgraduate and undergraduate levels. These sessions are promoting skills such as critical thinking, evaluation and reflection which bring students into the world of scholarship.

Information literacy competencies are important for lifelong learning. As a consequence, MILU would like the university to approve the teaching of compulsory information literacy modules throughout the students' academic life and the granting of academic credit to students for taking such courses.

MILU is in the process of providing online tutorials to supplement in-house training sessions. One of these, "Searching the Library's Catalogue", is now accessible from the Web page and others will follow as soon as they have been developed. Because students have different learning styles, the online module is popular with some users.

MILU is also strengthening the university's liaison with schools through its outreach programmes. A number of students in the sixth form in Jamaica and other Caribbean islands have benefited from its information literacy instruction either through teleconference or face-to-face instruction.

Manage Resources Effectively and Generate Additional Resources

In keeping with its objective to exercise prudent management of its human and financial resources in order to achieve excellence in service, the Library administration has been creating opportunities for staff to develop in their areas of expertise. For example, through links established with Cornell University bindery, two members of the Mona Library bindery staff had the opportunity for a two-week attachment at that facility.

With regards to financial resources, the Library is sensitized now more than ever to the need for income-generating activities and has been seizing every opportunity to do so. For example, it has been realizing a small income from the provision of library services and resources to special groups such as the BEd Secondary (Distance) Project and the pre-university students. Staff members have also written successful project proposals which have brought in funds enabling the Library to undertake important projects and acquire necessary resources.

Mona Library is constantly striving for excellence in service delivery, so it is aware of those areas of its operations that could be strengthened. However, it is constrained by a lack of financial resources. It is also cognizant of the findings of the Library user survey undertaken by the Office of the Board for Undergraduate Studies between 2003 and 2005 (OBUS 2006). These indicate that students are satisfied with the Library environment, twenty-four-hour reading room, and range of books, computers and assistance from the librarians. However, they would like to see more copies of required texts, extended opening hours, more computers, more photocopying facilities, longer loan periods and a reduced noise level. Based on the above, the following recommendations are suggested for implementation where possible:

- Encourage and assist Library staff to develop technological expertise in addition to their subject expertise so that all will be better able to assist users working in the electronic environment. According to Shapiro and Long (1994, 289), "No longer can libraries afford to have a small cadre of technological wizards to manage technology. Technology must be integrated throughout the library."

- Improve user connection through the use of periodic comprehensive user surveys so that there is not a mismatch between the Library's services and resources and those required by users. The Library has been maintaining user connection through the use of suggestion boxes. These produce valuable information but they do not provide data which is important for decision making. A useful complement to the suggestion boxes would be a comprehensive user survey such as the one recently conducted by the Office of the Board for Undergraduate Studies (OBUS 2006). This should be undertaken at least every three years to ascertain the profile of the users, since this can impact on service delivery, as well as new user needs and the level of satisfaction with services being offered.
- Assist young academics and PhD students to advance their research activity. It is by the publication of staff research findings in high-impact journals that a university's research performance is usually rated. By raising the awareness of young academics and PhD students about these journals and how to get published in them, the Library could help to lessen concerns about publication. The Library can also bring to their attention well-organized, high-quality, informative and accurate Web sites that deal with the writing of research papers.
- Improve students' information literacy competencies by encouraging faculty to include librarians in the design of courses. This would afford the opportunity for librarians to offer suggestions on information competency skills that could be interwoven in the course to yield desirable learning outcomes.
- Lobby for a greater percentage of the university budget in order to address the students' requests for more copies of required textbooks, more computers and more photocopying facilities. Special project funding should be requested so that greater use can be made of information technologies to improve resources and services. For example, digitization of unique and special collections and the RBC photocopies, as well as the expansion of the e-book collection to include core texts, could enhance access.
- Increase security presence and use moral suasion to deal with the noise level in the Library as this is a sore point with students and visitors alike

and one to which an urgent solution is needed. These two strategies may also help to lessen the abuse of Library material as well.

Conclusion

The Mona campus is responding to changes in the teaching and learning environment by working towards the creation of a modern learning institution. It is the responsibility of its various departments to align themselves with its goals so that the desired outcomes may be achieved. With the assistance of the new technology, the Library has introduced a number of new services and resources which are greatly benefiting its clients and enhancing the UWI's thrust for excellence. However, the pace of response to client needs and expectations is constrained by resource limitation.

References

Altbach, P. 2002. Perspectives on international higher education. *Change* 34, no. 3: 29–31.

American Library Association. 2004. Guidelines for distance learning library services. http://www.ala.org/acrl/guides/distlrng.html. Accessed 6 November 2006.

Drake, M.A. 1993. Technological innovation and organizational change. *Journal of Library Administration* 19, nos. 3–4: 39–54.

Duderstadt, J.J. 1999. New roles for the twenty-first century university. *Issues in Science and Technology* 16, no. 2: 37–44. Academic Search Premier. http://web.ebscohost.com. Accessed 7 November 2006.

Emes, C., and M. Cleveland-Innes. 2003. A journey toward learner-centred curriculum. *Canadian Journal of Higher Education* 33, no. 3: 47–69.

Linden, Julie. 2000. The library's website is the library. *College and Research Libraries News* 61: 99–101.

Lyall, K.C., and K.R. Sell. 2006. The de facto privatization of American public higher education. *Change* 38, no. 1. Academic Search Premier. http://web.ebscohost.com. Accessed 5 November 2006.

Nozero, V.A., and J. Vaughn. 2000. Utilization of process improvement to manage change in academic library. *Journal of Academic Librarianship* 26: 416–21.

Owusu-Ansah, E.K. 2001. The academic library in the enterprise of college and universities: Toward a new paradigm. *Journal of Academic Librarianship* 27: 282–94.

Popoola, O.M. 1992. The role of libraries in the promotion of independent study in developing countries. *Research Strategies* 10, no. 4: 161–69.

Rockman, I. 2003. Integrating information literacy into the learning outcomes of academic disciplines: A critical twenty-first century issue. *College and Research Libraries News* 64: 612–15.

Rosenquist-Buhler, C. 1996. New partners in distance education: Linking up to libraries. *Library Administration and Management* 10, no. 4: 220–25.

Schroeder, Charles C. 2003. Supporting the new students in higher education today. *Change* 35, no. 2. Academic Search Premier. http://web.ebscohost.com. Accessed 5 October 2006.

Shapiro, B.J., and K. Brook Long. 1994. Just say yes: Reengineering library user services for the twenty-first century. *Journal of Academic Librarianship* 20: 285–90.

Stoffle, C.J., R. Renauld and J. Veldof. 1996. Choosing our futures. *College and Research Libraries* 57: 213–25.

Tam, L.W.H., and A.C. Robertson. 2002. Managing change: libraries and information services in the digital age. *Library Management* 23, nos. 8–9: 369–77. EmeraldFullText. http://www.emeraldinsight.com. Accessed 30 October 2006.

University of the West Indies (UWI). Office of the Board for Undergraduate Studies (OBUS) and the Quality Assurance Unit. 2006. *Report on the Library User Satisfaction Survey at the Cave Hill, Mona and St Augustine Campuses of the University of the West Indies 2005.* Kingston: OBUS.

University of the West Indies. Mona Campus. 2001. *Principal's Report to Campus Council.* Kingston: Office of the Principal, UWI.

———. 2003. *Principal's Report to Campus Council.* Kingston: Office of the Principal, UWI.

———. 2005. *Principal's Report to Campus Council.* Kingston: Office of the Principal, UWI.

Warken, P. 2004. New technologies and constant change: managing the process. *Journal of Academic Librarianship* 30: 320–27.

White, L.N. 2006. Using the L.E.A^3.D. technique to turn your competition into an emergent strategic tool. World Library and Information Congress. Seventy-second IFLA General Conference and Council, Seoul, Korea. 20–24 August.

Caribbean Tertiary Level Students' Perception of Holistic Learning Practices

THELORA REYNOLDS

Introduction

Tertiary level institutions are dynamic social systems that, by definition, must respond to global social, political and socio-economic trends as the premier institutions that "produce" an economy's most important resource – human resource. Hence, it is no wonder that recent pieces of literature have been articulating perceptions of the "attributes" tertiary level graduates should possess. The *Ministry of Education and Youth Strategic Plan 2006–2010* (p. 37) describes the ideal graduate of the Jamaican tertiary system as one able to

- operate effectively with and upon a body of knowledge of sufficient depth to begin professional practices;
- be prepared for lifelong learning in pursuit of personal development and excellence in professional practices;
- be an effective problem-solver, capable of applying logical, critical and creative thinking to a range of problems;
- work both autonomously and collaboratively as a professional;
- be committed to ethical action and social responsibility as a professional and as a citizen;

- communicate effectively in professional practices and as a member of a community; and
- demonstrate international practices as a professional and as a citizen.

The 2006 signing of the Caribbean Single Market also brought with it expressions of the CARICOM Secretariat's concept of an ideal Caribbean person. The *UNESCO Education for All – Global Coordination – Working Group on Education* (2006) implies its expectation of tertiary level institutions through its description of an ideal Caribbean person as someone who, among other things,

- is imbued with a respect for himself or herself, since self-respect is the foundation on which all the other desired values rest;
- is emotionally secure with a high level of self-esteem;
- sees ethnic, religious and other diversity as a source of potential strength and richness;
- is aware of the importance of living in harmony with the environment;
- has a strong appreciation of family and kinship values, community coherence, and moral issues, including responsibility for and accountability to self and community;
- has an informed respect for the cultural heritage;
- demonstrates multiple literacies, independent and critical thinking, questions the beliefs and practices of past and present, and brings the innovative application of science and technology to problem solving;
- demonstrates a positive work ethic;
- values and displays the creative imagination in its various manifestations and nurtures its development in the economic and entrepreneurial spheres as well as in all other areas of life;
- has developed the capacity to create and take opportunities to control, improve, maintain and promote physical, mental, social and spiritual well-being and to contribute to the welfare of the community and the country; and
- nourishes in himself or herself, and in others, the fullest development of each person's potential without gender stereotyping, and embraces differences and similarities between females and males as a source of mutual strength.

In his address to the Ninth Annual Caribbean Tertiary Level Personnel Association (CTLPA) in Nassau, Bahamas, in 2006, Senator the Honourable Delano Franklin, state minister of foreign affairs in Jamaica, placed the responsibility of producing such persons in the hands of Caribbean tertiary level institutions: "Tertiary education plays a vital role in the development of human resources, which is imperative if the CSME [Caribbean Single Market and Economy], as a group, is to be competitive in the global environment. The aim should be to develop a well-qualified workforce."

The literature also draws attention to the fact that the expressed expectations linked to tertiary level graduates are not a phenomenon unique to developing countries. As early as 1995, Goldman, writing in the United States, identifies his perception of the most important dimensions of a tertiary level graduate. His list includes

- interpersonal skills
- ethics and integrity
- leadership
- perseverance
- knowledge

There is also evidence that within institutions, administration and faculty are aware of the expectations external stakeholders have of tertiary level institutions. Leo-Rhynie (2003, 1) then pro vice chancellor, Board for Undergraduate Studies, The University of the West Indies (UWI), Mona, states, "Rapid changes and the growth of technology have generated the demand that academic institutions (tertiary) be more relevant, more accountable, demonstrate greater flexibility, and increase responsibility to the requirements of local communities, as well as national, regional and international needs." Jennings (2006), then head of Educational Studies at the UWI Mona, in her presentation at the 2006 CTLPA annual conference, emphasized that the "workplace is demanding a broader range of competencies than before. These go beyond job-specific skills and attach importance to personal attributes that enable the graduate to fit into the working world."

The tertiary level student cannot achieve the expressed attributes/dimensions articulated thus far, incidentally. The process requires intentional learn-

ing experiences, where the balance of challenge and support (Sandford 1966) are blended in academic and affective experiences to produce a seamless holistic approach to student learning and development. Serro and Dreyden (1990), Terenzini, Springer and Pascarella (1995), and King (1996) postulate that students learn in a holistic, integrated way as they engage in activities inside and outside the classroom. The holistic approach to learning is defined as a combination of knowledge acquisition (especially in the classroom), skills (developed through application inside and outside the classroom) and attitudes (a product of social interaction). Leo-Rhynie (2003, 3) can be interpreted as conveying the concept of holistic learning and development through her expression of a quality-driven learning environment. She states, "Building learning environments demands that different areas of the University work collaboratively, to create a quality institution which values the synergy which can emerge from partnership and community in the learning enterprise."

In support of the holistic approach as the main method of facilitating student learning and development in tandem with global expectations, Reynolds (2004, 24) states that "serious consideration needs to be given to the concept of tertiary level institutions as learning communities, where the holistic development of students is not just the concern of an individual department". Administration, student services, personnel, faculty and students must be aware of the imperative of this approach. The mushrooming of departments of student services in some Caribbean tertiary level institutions is evidence that a structure is being put in place for the delivery of the qualitative or affective aspect of learning and development. However, do students in Caribbean tertiary level institutions perceive that the institutions are using a holistic approach to enhance their learning and development? Astin (1996, 124) clarifies the importance of the holistic approach: "If we stop for a moment to consider what the most critical problems of our society really are, they are at least

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as 'affective' as they are 'cognitive': racial tension, crime, drug abuse, teen pregnancy, school drop outs, disengagement from politics, and a growing unwillingness among the public to support governmental efforts to alleviate some of these problems."

Purpose of the Study

This study investigated Caribbean students' perception of holistic learning practices in selected Caribbean universities and colleges. The study was based on the assumption that perceptions are formed, based on the experiences to which one is exposed. Since 1996, CTLPA and UWI Mona have been engendering an academic approach to the qualitative or affective aspect of holistic learning and development, and encouraging student services to collaborate with faculty in the delivery of classroom and out-of-classroom programmes and activities that will facilitate the holistic approach. As a result, in Jamaica, the three major universities, the Vocational Training Institute, four teachers' colleges, one theological seminary and two community colleges now have departments of student services offering structured qualitative learning and development activities which support classroom learning. There are also student services departments in the traditional universities and some colleges in Barbados and Trinidad and Tobago. Most English-speaking Caribbean territories have been demonstrating increasing interest in an academic approach to qualitative learning through their delegates' participation in the CTLPA's professional development conferences and workshops. An understanding of students' perceptions will indicate the degree of success the institutions are experiencing in meeting national, regional and global expectations of a tertiary level graduate. Specifically, this study sought answers to the following questions:

- Do Caribbean tertiary level students perceive that their institutions practise a holistic approach to student learning?
- Is there a difference in perceptions between male and female students?
- Is there a difference in perceptions among students according to territories?

- Is there a difference in perceptions among students according to institutions?

Research Design and Methodology

The study was conducted using the survey design. Quantitative data were collected using an instrument of forty items. One open-ended question which provided qualitative data was included. In each institution, the instrument was administered by the head of student services.

The Sample

The sample consisted of 417 students, randomly selected from six Caribbean tertiary level institutions in Barbados, Trinidad and Tobago, and Jamaica, namely the Vocational Development Training Institute (VTDI), the Barbados Community College (BCC), UWI and the University of Technology (UTech).

More than half the respondents (234) came from institutions in Jamaica, with UWI Mona accounting for more than 50 per cent of the total. Only one institution made up the sample from Trinidad and Tobago. This sample distribution introduced certain limitations to the study as the results of the quantitative data were skewed towards Jamaica, and to UWI Mona in particular. The response pattern also presented a second limitation. The development of student services is at different stages in each territory and in institutions within a given territory, and so participants could not respond to all the items in a meaningful way. This resulted in some missing data as there was no response to some items. The data on individual items had to be presented instead of the perception scale that was envisaged. The final limitation had to do with the non-stratification of the sample. The lack of response to many of the items also suggested that some of the respondents did not access all the out-of-classroom activities and offerings of units on which data were sought and so could not respond to the related items. The responses from the open-ended question greatly enhanced the findings of this study.

Presentation of Findings

Question 1: Do Caribbean tertiary level students perceive that their institutions' practices reflect the holistic approach to student learning?

Table 1 presents the data for items measuring students' perception of holistic learning practices in Caribbean tertiary level institutions.

The responses to the question "What do you think your institution needs to do to facilitate holistic learning?" added clarity to the patterns of responses in the quantitative data and also conveyed students' expectations of their tertiary level institutions. Regrettably, participants from two of the institutions sampled did not respond to the open-ended question. It was also difficult to categorize responses across the four institutions as the responses seem to be peculiar to the stage of the development of student services on the campuses and the level of structured out-of-classroom offerings on the individual campuses. The data will be presented according to institutions.

Categories of what institutions need to do to facilitate holistic learning are listed below.

1. The need for campuses to know and inform students about what is holistic learning

This category was peculiar to the UWI Cave Hill campus. Examples of suggestions in this category included

- "Cave Hill first needs to know what is holistic learning."
- "Cave Hill needs to communicate better to the student body what exactly is holistic learning and how the students can be involved. This is because students seem unaware of activities outside of lectures/tutorials that can make you a better person."

2. The need to inform students about the role and functions of student services

Suggestions in this category were popular among the UWI Cave Hill respondents. For example:

Table 1. Students' Perception of Holistic Learning Practices

N	Items	N	SA		A		U		D		SD	
			F	%	F	%	F	%	F	%	F	%
1	The concept of the balance between academic and qualitative learning is emphasized during orientation.	357	19	4.6	226	54.2	49	11.8	47	11.13	16	3.8
2	Faculty never explains how out-of-classroom learning programmes support classroom learning in preparing students for life.	362	28	6.7	189	45.3	21	5.0	103	24.7	21	5.0
3	I am aware that faculty and student services (SS) collaborate to promote student learning on my campus.	366	26	6.2	223	53.5	29	7.0	64	15.3	24	6.6
4	SS personnel always emphasize the total development of students.	358	19	4.6	212	50.8	39	9.4	61	14.6	27	6.5
5	The head of my institution always encourage us to be rounded students.	363	37	8.9	202	48.4	42	10.1	57	13.7	25	6.0
6	SS personnel never explain how out-of-class-room programmes support classroom learning in preparing students for life.	353	22	5.3	199	47.7	52	12.5	62	14.9	18	4.3
7	SS personnel never emphasize the total development of students.	359	35	8.4	204	48.9	55	13.2	52	12.5	13	3.1
8	Faculty members discourage students from being involved in out-of-classroom activities.	359	62	15.9	85	20.4	34	8.2	164	39.3	14	3.4
9	Faculty members emphasize the total development of students.	357	29	7.0	208	49.9	58	13.9	52	12.5	10	2.4

Table 1 continues

Table 1. Students' Perception of Holistic Learning Practices (*cont'd)*

N	Items	N	SA		A		U		D		SD	
			F	%	F	%	F	%	F	%	F	%
10	The head of my institution never encourages us to be rounded students.	353	56	13.4	192	46.0	47	11.3	50	12.0	8	1.9
11	Faculty members never emphasize the total development of students.	353	37	8.9	76	18.2	41	9.8	192	46.0	7	1.7
12	Faculty encourages students to be involved in structured out-of-classroom activities.	356	17	4.1	220	52.8	51	12.2	50	12.0	18	4.3
13	SS personnel carefully explain how out-of-classroom programmes support classroom learning.	356	12	2.9	195	46.8	63	15.1	59	14.1	27	6.5
14	Faculty members are involved in students' out-of-classroom activities.	356	10	2.4	181	43.4	71	17.0	63	13.1	31	7.4
15	Faculty members carefully explain how out-of-classroom programmes support classroom learning in preparing students for life.	358	14	3.4	194	46.5	62	14.9	64	15.3	24	5.8
16	SS personnel assist me to practise classroom learning through programmes they offer.	355	13	3.1	196	47.0	64	15.3	56	13.4	26	6.2
17	I am not aware that faculty and SS collaborate to promote student learning on my campus.	356	26	6.2	181	43.4	38	9.1	87	20.9	24	5.8
18	Faculty members have nothing to do with students' out-of-classroom activities.	354	28	6.7	201	48.2	54	12.9	54	12.9	17	4.1
19	SS personnel have nothing to do with students' classroom learning.	355	30	7.2	192	46.0	55	13.2	59	14.1	19	4.6

Table 1 continues

Table 1. Students' Perception of Holistic Learning Practices (*cont'd*)

N	Items	N	SA		A		U		D		SD	
			F	%	F	%	F	%	F	%	F	%
20	I am aware of what the working world expects of a tertiary level graduate.	359	50	12.0	235	56.4	26	6.2	38	9.1	10	2.4
21	In my institution, students are prepared for life through structured out-of-classroom programmes.	306	13	3.1	174	41.7	38	9.1	59	14.1	22	5.3
22	Classroom knowledge helps me to be effective in co-curricular activities.	298	15	3.6	192	46.0	26	6.2	53	12.7	12	2.9
23	All clubs and societies have faculty members as staff advisors.	293	4	1.0	157	37.6	74	17.7	50	12	8	1.9
24	Students are prepared for leadership roles in life through leadership programmes delivered by SS.	301	12	2.9	188	45.1	48	11.5	42	10.1	11	2.6
25	Faculty members always assist with most structured out-of-classroom learning activities.	303	5	1.2	164	39.3	68	16.3	53	12.7	13	3.1
26	Study skills programmes are delivered to help students in their academic pursuits.	303	16	3.8	197	47.2	41	9.8	40	9.6	9	2.2
27	Halls of residence are conducive to studying.	253	2	.5	167	40.0	39	9.4	34	8.2	11	2.6
28	In my institution structured out-of-classroom programmes do not incorporate classroom learning.	304	5	1.2	184	44.1	54	12.9	47	11.3	14	3.4
29	No effort is made to teach civic responsibility in residence halls.	250	4	1.0	161	38.6	42	10.1	36	8.6	7	1.7

Table 1 continues

Table 1. Students' Perception of Holistic Learning Practices (*cont'd)*

N	Items	N	SA		A		U		D		SD	
			F	%	F	%	F	%	F	%	F	%
30	I am registered in a campus-recognized club or society.	250	29	7.0	175	42.0	21	5.0	46	11.0	13	3.1
31	Faculty members never assist with structured out-of-classroom learning activities.	299	7	1.7	190	45.6	56	13.4	37	8.9	9	2.2
32	SS does not prepare students for leadership roles.	294	10	2.4	197	47.2	42	10.1	37	8.9	8	1.9
33	It is difficult to study in the halls of residence.	255	8	1.9	158	37.9	39	9.4	39	9.4	11	2.6
34	I am not registered in a campus-recognized club or society.	294	28	6.7	177	42.4	29	7.0	53	12.7	7	1.7
35	There are no study skills programme to assist students with their academic pursuits.	306	18	4.3	186	44.6	47	11.3	45	10.8	10	3.3
36	There are no structured programmes that prepare students for the world of work.	305	17	4.1	194	46.5	38	9.1	43	10.3	13	3.1
37	Clubs and societies do not have faculty members as staff advisors.	292	7	1.7	182	43.6	58	13.9	41	9.8	4	1.0
38	Students are prepared for the world of work through structured programmes offered by SS.	298	6	1.4	187	44.8	50	12.0	45	10.8	10	2.4
39	Classroom knowledge is not relevant to the co-curricular activity in which I am involved.	293	17	4.1	189	45.3	31	7.4	45	10.8	11	2.6
40	Civic responsibility is taught in residence halls.	247	5	1.2	168	40.3	35	8.4	32	7.7	7	1.7

– "I am not sure [what the institution needs to do]. As a student I hardly know anything. Perhaps they [the campus] need to make us aware of the activities."
– "More awareness about student services and what they offer. Also I did not know anything about them until filling out this survey."
– "Student services does not seem very involved in any activities with the school."
– "To enlighten students firstly about student services (which I know nothing about)."

The UTech respondents had similar views, as exemplified in their comments:
– "I am not certain what kind of support student services can lend to faculty. If there are any, they would need to publicize it more."
– "Student services need to educate the students about the benefits of their services."
– "I think student services needs to make the university more aware of their services and educate the students about their benefits."

None of the comments from BCC and UWI Mona fell in this category.

3. Programme delivery

In this category, respondents from all the institutions had suggestions, but the participants from UWI Cave Hill had the most suggestions, among them:

– "Be more open-minded and offer more creative programmes."
– "More seminars and programmes that deal with social issues affecting students and residents of Barbados."
– "Offer more programmes that would be appealing to students and to promote these programmes throughout the school so that everyone knows."
– "Programmes that incorporate parallels with the world of work and university education."
– "There needs to be a more hands-on experience and internship."

UTech respondents placed great importance on the value of clubs in promoting holistic learning:

– "Educate students on the role of clubs in their development."

– "Pay more attention to clubs and promote the development of them."
– "Encourage the clubs to instill their values and attitudes in students."

The suggestions from BCC centred on increasing the number of programmes:

– "BCC needs to create programmes that involve students inside and outside the classroom, in preparing us for the world of work."
– "I think they need more programmes that will help us with outside activities."

Respondents from Mona had two main comments:

– "More programme such as the Quality Leadership Programme which facilitates the knowledge that a classroom does not provide, for all levels of students."
– "Make available more internship/work study programmes."

4. Ethic of care

Participants from three of the four institutions from which suggestions were presented spoke to students' desire to experience an ethic of care in their institutions.

UWI Cave Hill:

– "More student centred and less cricket centred."
– "They must first find out the needs of students, what they want to gain from the institution, and create programmes geared towards practical learning instead of just learning."

BCC:

– "Friendlier and more professional staff and more approachable tutors."
– "More emphasis should be placed on students. Students should be able to participate in decision-making processes which may be beneficial to them. This will make the environment more conducive to learning."
– "They need more comfortable facilities, also more understanding members of staff."

UWI Mona:

– "Students need to be the centre of focus for the university."
– "Getting something as simple as a status letter is far too tedious."

– "UWI staff, especially at student finance and the health centre need to be prepared to listen actively and have good customer services."
– "Show care and attention to students to keep them loyal."
– "A truly student-centred campus where students do not have to feel as if they are being sabotaged or victimized."

5. Preparation for the world of work

The responses suggest that students do not think that their learning has the required practical component.

UWI Cave Hill:
– "It [the institution] needs to practise out-of-classroom activities that prepare students for the world of work."
– "Encourage more practical teaching in the world of work."
– "I think the classroom work should be incorporated into real-world scenarios."
– "More campus programmes with on-the-job training."
– "Need to incorporate learning experiences in a manner conducive to the actual working world, not just focus on academic learning."

BCC:
– "There needs to be more focus on the practicality of what we learn as well as practical experience in the world of work."
– "There is a need for a leadership-building programme."

Mona:
– "Make available more internship/work study programmes."
– "More campus employment opportunities."

6. The role of sports

The respondents from the two UWI campuses suggested that holistic learning and development could be enhanced through sports.

UWI Cave Hill:
– "There should be more organized, inclusive and a wider variety of sporting events."
– "Less cricket-centred activities."

– "Have mandatory classes which include actively participating in sports or another extra-curricular activity. For example, all first-years should take swimming – after all, we live on an island."

Mona:

– "There is not enough emphasis being placed on sports in the university community."
– "The delivery system regarding sports development at Mona is woefully lacking."

"Sports department has not been able to rally students."

7. Residence life

Mona was the only institution sampled, and students seemed to see residence life as important in the holistic learning and development. Their suggestions centred around expanding on-campus accommodation:

– "The university should seek funding to construct at least two new halls and if this is not possible, then additional spaces should be added to the existing halls. At least one new one with a capacity of close to one thousand."
– "Halls of residence need to be refurbished and more living accommodation should be constructed for students."

Question 2: Is there a difference in perception between male and female students?

Table 2 shows the group statistics and Table 3 is the T-test indicating significant differences in perception by gender.

Table 2. Group Statistics

Gender	N	Mean	Standard Deviation	Standard Error Mean
Perception				
1 Male	85	87.53	28.542	3.096
2 Female	287	88.53	30.173	1.783

Table 3. Independent Sample T-test

	T-test for Equality of Means								
	F	Sig.	t	df.	Sig. (2-tailed)	Mean Difference	Std. Error Diff.	95% Confidence Interval of the Difference	
								Lower	Upper
Perception: Equal variance assumed	1.460	228	-.228	370	.787	-.997	3.68	-8.235	6.242
Equal variance not assumed			-.279	144.167	.781	-.997	3.572	-8.056	6.063

The table indicates that there is no significant difference between the perception of male and female students.

Question 3: Is there a difference in perception among students from different territories?

Table 4 indicates the perceptions descriptives and Table 5 presents the ANOVA results.

Table 5 indicates that there are significant differences in the perceptions of students from Barbados, Jamaica, and Trinidad and Tobago, both at the 95

Table 4. Perceptions Descriptives by Territories

	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
1. Barbados	103	105	26.39	2.601	100.67	110.98	11	188
2. Jamaica	218	89.96	24.87	1.685	86.64	93.28	4	160
3. Trinidad & Tobago	56	49.16	14.387	1.922	45.31	53.01	11	73
Total	377	88.23	29.838	1.537	85.21	91.26	4	188

Table 5. Perception ANOVA

	Sum of Squares	df.	Mean Square	F	Sig.
Between Groups	118018.423	2	59009.211	101.825	.000
Within Groups	216739.036	374	579.516		
Total	334757.456	376			

Table 6. Tukey's Post Hoc Test 95% Confidence Interval

(II) Territories	(J) Territories	Mean Difference (I–J)	Std. Error	Sig.	Lower Bound	Upper Bound
1. Barbados	2. Jamaica	15.867 (*)	2.878	.000	9.09	22.64
	3. Trinidad & Tobago	56.665 (*)	3.997	.000	47.26	66.07
2. Jamaica	1. Barbados	-15.867 (*)	2.878	.000	-22.64	-9.09
	3. Trinidad & Tobago	40.798 (*)	3.606	.000	32.31	49.28
3. Trinidad & Tobago	1. Barbados	-56.665 (*)	3.997	.000	-66.07	-47.28
	2. Jamaica	-40.798 (*)	3.606	.000	-49.28	-32.31

per cent and 99.9 per cent confidence levels. The Turkey's post hoc test was applied to locate the source of the difference and Table 6 presents the findings.

The analysis showed significant differences among the mean scores of students from each given territory and the two other territories in the sample.

Question 4: Is there a significant difference in the perceptions of students from the different institutions?

Table 7 presents the descriptive data and Table 8 shows the result of the ANOVA test.

Table 7. Descriptive Data by Institutions

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
1. VTDI	15	71.6	30.687	7.923	54.61			
2. COSTATT	56	49.16	14.387	1.922	45.31			
3. BCC	29	103.41	27.432	5.094	92.98			
4. UWI Cave Hill	74	106.77	26.106	3.035	100.72			
5. UWI Mona	175	91.61	25.085	1.896	87.87			
6. UTech	28	89.46	15.020	2.838	83.64			
Total	377	88.23	29.838	1.537				

Table 8. Perception ANOVA by Institutions

	Sum of Squares	df.	Mean Square	F	Sig.
Between Groups	123793.635	5	24758.727	43.541	.000
Within Group	210963.824	371	568.631		
Total	334757.459	376			

Table 8 shows that the differences in perceptions among the institutions sampled are significant both at the 95 per cent and 99.9 per cent confidence levels. A post hoc test showed significant differences in students' perception of the holistic learning practices in the six institutions sampled. There were no significant differences in the perceptions between students of VTDI and UTech; BCC and UWI Cave Hill, UWI Mona and UTech; UWI Mona and BCC, UTech and VTDI; and UTech and BCC.

Discussion

Bearing in mind the stated limitations, an examination of the findings related to individual items shows that, on the whole, Caribbean tertiary level students have a positive perception of holistic practices in the institutions they attend. An examination of certain items indicates the students' perceptions of the roles of administration, faculty and student services personnel in the holistic practices. For example, item 10, "The head of my institution never encourages us to be rounded students", has a total of 248, or 59.4 per cent, agreeing to this negative statement. The result cannot be interpreted as saying that heads do not believe in the holistic approach, but what is clear is that the attitude towards the holistic approach is not conveyed to the student. This thought is underscored by responses to the open-ended question. One category identified was "The need for campuses to know and inform students on what is holistic learning". Kuh (1996, 136) includes in his list of ten conditions that foster student learning and development "an institutional philosophy that embraces a holistic view" and "complementary institutional policies and practices congruent with students' characteristics and needs". Heads of

institutions should guide the formulation of policies related to the holistic approach and convey their support of such practices to students.

This lack of knowledge on the campuses' attitude towards holistic practices is also reflected in the relatively large number of responses in the category "undecided". Twenty-two of the forty responses in this category were 10 per cent or over and only 2 responses were in the lowest percentage (5 per cent) in the entire instrument. If that "undecided" is interpreted as "I do not know", then it follows that administration, faculty and student services need to let students know how they are preparing them for life. Again, the qualitative responses support this thought. Students suggested "more awareness about student services and what they offer"; "I am not sure [what the institutions need to do]; "As a student, I hardly know anything"; and "Perhaps they (the campus) need to make us aware of the activities."

As early as 1975, the literature (Wilson et al. 1975) records findings that indicate the learning gains from students' interaction with faculty outside the classroom. The researchers reported that "the greatest gains in such skills as the ability to comprehend, interpret, or extrapolate; to evaluate materials and methods; and to apply abstractions or principles also reported the most informal, out-of-class contact with faculty members". The responses to the items that tap data on staff's involvement in student's out-of-classroom activities have two indications. On the one hand, there are indications that some Caribbean tertiary level staff members are somewhat involved in students' out-of-classroom learning activities. The response to item 14 ("Faculty members are involved in student's out-of-classroom activities") shows that a total of 190, or 45.8 per cent, agree to the statement. That is fairly good, but must be balanced against item 8, where 147 or 36.3 per cent of the respondents agree that "faculty members discourage students from participating in out-of-classroom activities". The call is for "all members of an institution to work together to link programmes and activities across the academic and out-of-class dimensions of students' lives" (Kuh 1996, 137). Students also made this suggestion in their qualitative responses. In the category of programme delivery, the suggestions include "Create programmes that involve students inside and outside the classroom" and "I think they need more programmes that will help us with outside activities."

Of equal importance are the findings on the students' perception of how they are prepared for the world of work. The highest total of "agree" responses was 287, or 68.4 per cent, to item 20, "I am aware of what the working world expects of a tertiary level graduate". However, the suggestions from the qualitative section indicated that students were not quite satisfied with how the institutions prepare them for the world of work. In the category on preparation for the world of work, students suggested that "It [the institution] needs to practise out-of-classroom activities that prepare students for the world of work"; "I think the classroom work should be incorporated into real-world scenarios"; and "Need to incorporate learning experiences in a manner conducive to the actual working world, not just focus on academic learning." The students also suggested more on-campus employment and more work experience. The contention in *Learning Reconsidered* (ACPA/NASP 2004) is that the holistic educational opportunities that internships and outdoor educational experiences offer in most institutions are not available to all students or matched by the approaches in the rest of the traditional curriculum.

None of the quantitative items tap data on sports. However, students from the two campuses of the traditional university suggested improvement in the delivery of sports as one way of improving holistic learning. Attention should be given to students' suggestion of a more inclusive, wider variety and the need for improvement in the delivery system of sports.

All learning takes place in a social context, and so learning theorists (Holland 1985; King 1996) write extensively on the impact of the campus environment on student learning. *Learning Reconsidered* lists this social context as "personal relationships, group membership and inter-group connections". Participants from three of the four tertiary level institutions from which suggestions were made speak of students' desire to experience an ethic of care in their campus environments. Students express the need for friendlier and more professional staff; more comfortable facilities; opportunities to participate in decision making and less difficulty in accessing services.

Caribbean tertiary level institutions must develop, articulate and implement a collaborative policy approach to student learning and development, and clearly convey both that policy and the responsibility of students in achieving the holistic approach to student learning.

Conclusion and Recommendation

The concept of holistic learning is not new in the Caribbean. Caribbean institutions, from inception, have always offered classroom and out-of-classroom activities. However, the latter has been seen as "extra" to the curricula and so students may have perceived that it was not all that necessary in their preparation for life. The expectations of stakeholders are sending a different message. In keeping with the Senge's (1990) social systems' theory, tertiary level institutions must act on the feedback from sources in the system's environment and change the process to produce the required "output". Caribbean tertiary level institutions must develop, articulate and implement a collaborative policy approach to student learning and development, and clearly convey both that policy and the responsibility of students in achieving the holistic approach to student learning.

References

American College Personnel Association and National Association of Student Personnel Administrators (ACPA/NASPA). 2004. *Learning Reconsidered: A Campus-Wide Focus on Student Experience*. Washington, DC: NASPA.

Astin, A.W. 1996. Involvement in learning revisited: Lessons we have learned. *Journal of College Student Development* 3, no. 2: 123–34.

Holland, J.L. 1985. *Making Vocational Choices: A Theory of Vocational Personalities and Work Environments.* 2nd ed. Englewood Cliffs, NJ: Prentice Hall.

Jennings, Z. 2006. The role of faculty in holistic learning and development. Paper presented at the CTLPA Conference. Nassau, Bahamas.

King, P. 1996. Student cognition and learning. In *Student Services: A Hand Book for the Profession,* ed. S.R. Komives, 218–43. San Francisco: Jossey-Bass.

Kuh, G.D. 1996. Guiding principles for creating seamless learning environments for undergraduate students. *Journal of College Student Development* 37, no. 2: 135–48.

Leo-Rhynie, E. 2003. Creating a quality-driven learning environment: The importance of collaboration and partnership. *Journal of Education and Development in the Caribbean* 7, nos. 1–2.

Ministry of Education and Youth. *Strategic Plan for Education Framework 2006–2010.*

Reynolds, T.U. 2004. Affective teaching and learning in tertiary level institutions: An imperative for the twenty-first century. *Journal of Education and Development in the Caribbean* 8, nos. 1–2.

Sandord, N. 1996. *Self and Society: Social Change and Individual Development.* New York: Atherton Press.

Senge, Peter M. 1990. *The Fifth Discipline: The Art and Practice of the Learning Organization.* New York: Doubleday.

Serro, R.C., and J.I. Dreyden. 1990. Community serving among college and university students: Individual and Institutional relationships. *Adolescence* 25, no. 99: 553–66,

Terenzini, P.T., L. Springer and E.T. Pascarella. 1995. In and out-of-classroom influences affecting the development of student's intellectual orientation. *Review of Higher Education* 19, no. 1: 23–44.

Wilson, R., J. Gaff, L. Dienst and L. Bavry. 1975. *College Professionals and Their Impact on Students.* New York: Wiley-Interscience.

First Reactions to UWIHARP at The University of the West Indies, St Augustine

BRADER ADALEINE BRATHWAITE

It is safe to say that, in the Caribbean, the first responders making public pronouncements on HIV/AIDS in the late 1980s were calypso and reggae artistes who then contributed their own brand of health promotion messages. One artiste proposed "slowing down" and a return to heterosexual relationships, another suggested condom use "on the willy" to cope with the growing incidence of HIV/AIDS. Facing the rapid spread of the HIV/AIDS epidemic, however, institutions have been forced to address issues that, though begging academia for attention, would have continued in the periphery of Caribbean life, were it not for the creeping devastation from HIV/AIDS. Among the issues evoked by the epidemic are the reluctance to discuss sex or to place sexuality education on the curriculum from primary through tertiary education, or even to address sex in formal workplace programmes; persons whose sexual behaviours are considered to be deviant are also severely stigmatized. But the transmission of the virus across the Caribbean is mainly sexual, and issues of sexuality must be confronted to decipher how to curtail the prevailing epidemic.

A comfort level for discussing HIV/AIDS may have been advanced when the Caribbean Epidemiology Centre first engaged personnel at The University of the West Indies (UWI) in designing a mathematical model for the spread

of the epidemic with economic effects in mind. An economic point of view on the epidemic since then has raised much interest. Within recent time, an update by consultants at the UWI had predicted a loss of gross domestic product in territories across the Caribbean by 2005, should the situation continue its current foreboding trend.

The UWI is now fully on board with the UWI HIV/AIDS Response Programme (UWIHARP) as one of the strategies in the Caribbean Strategic Plan for AIDS. The aims of UWIHARP are to

- accelerate action by the UWI in response to the growing HIV/AIDS epidemic through research, education and training, and strategic engagement with the society
- develop and monitor HIV/AIDS policies
- generate, attract and manage resources to sustain the response to HIV/AIDS
- serve as a clearinghouse for HIV/AIDS information, complementing national, regional and international agencies

At the initiation of UWIHARP in 2002 on the St Augustine campus, it was imperative to determine whether various sub-groups were demonstrating a readiness to respond to the epidemic. During the academic year 2003–2004, focus group discussions were arranged, sometimes with a measure of resistance, with staff from the following sections: The university library system (JFKL), Campus Information Technology Services (CITS), the Centre for Gender and Development Studies (CGDS), the University Health Services (UHS), the Faculty of Medical Sciences (FMS), the School of Education (SOE), Campus Security (CS), the Student Guild of Undergraduates (SGU), the School of Continuing Studies (SCS), and the Office of the Campus Registrar (OCR). The group sizes varied between six and ten respondents, and lasted for a maximum of ninety minutes. At the Faculty of Science and Agriculture, the official request for the focus group discussion was relayed to the Department of Chemistry, where many graduate students and laboratory technicians came prepared to participate in a lecture instead of a focus group discussion. With regret, meetings were not afforded at the Faculty of Social Sciences, the Faculty of Engineering and the Law School.

To generate group discussions, questions were posed on the following topics:

- personal reflections on the epidemic
- the mandate of the university to address HIV/AIDS
- policy and management systems impacted by the epidemic
- care and support for persons living with AIDS
- loss of human resources, high-risk situations for students and staff
- the production of AIDS-educated graduates
- the impact of HIV/AIDS, if any, on the UWI culture

The discussions were audio-taped and the transcripts analysed for the perceptions of staff, their concerns and their sense of readiness to deal with the epidemic, in addition to the recommendations that they would offer.

Findings from Discussions

In general, no respondent was yet aware of the draft university policies that related to HIV/AIDS; however, all groups felt that UWI had an inherent mandate to deal with the issues of HIV. Many participants voiced that the UWI was tardy in beginning an intervention, but that an intervention emerging from the university would be seen as credible in the eyes of the society.

> UWI has a duty to respond, and as a regional institution, it should provide a regional response with intellectual leadership. We, as a seat of enlightenment, should provide direction, especially where the disease is being spread by ignorance. It should be on the curriculum, but we need to seen as doing something as well. (JFKL)

It was felt that the university was in a position to address several of the myths on AIDS and sexuality at the grassroots levels if it were to seriously implement outreach programmes and action research to address the epidemic.

> A vast area has not been researched – which keeps the epidemic at a mythical level. We are not researching the informal channel, for example, we do not know how people in the rural or deprived areas feel or think about AIDS. There are myths that exist, we can explore and bring them to the fore through rigorous research. It is my view that what we put out is still for people of a certain readability level. (SCS)

Reflection on the epidemic revealed that while there were a number of respondents in the focus group discussions who had not given serious thought to the occurrence of the disease, there were others who had personal encounters or heart-rending thoughts after pondering on the devastation on individuals who had succumbed to AIDS. A few participants also mentioned the rumours they had heard about certain persons at the UWI who had supposedly died of AIDS. "I did not understand the reason for the constant absenteeism of a colleague five years ago. After he died I felt very badly because I had pointed at him. It was after that I heard that it was AIDS" (JFKL).

One participant, in the early days of the epidemic, had seen someone who had been left on a street to die. Another had seen the rapid weight loss and debilitating effects of someone who lived in the neighbourhood. Here, it appeared that those participants who had confronted the disease were more broad-minded and compassionate. Once the discussions had overcome the many initial negative reactions to speaking openly about HIV/AIDS, however, participants would then follow up with recommendations on activities that could be conducted in their own departments, at the university level or at the national level. Highlights of the discussion with specific groups have been captured in the following sections.

The Library System

The library staff envisioned a role for the graduates of the UWI in the workplace, where subsequent to introducing a curriculum in HIV/AIDS, graduates would be capable of assisting with new attitudes to HIV/AIDS in the workplace. The library staff felt that although they would usually adopt a role in the acquisition of the type of information resources on HIV/AIDS in the library, they should not confine themselves to that role; they should now extend services into attracting students to encounter the information through mounting occasional displays and placing billboards across the campus to maintain student interest. As a result, they saw the need to adopt a stronger role in information dissemination.

Centre for Gender and Development Studies

A participant in this group shared her concern for the changing epidemiological pattern which showed that women were increasingly being infected, and she was particularly sensitive to the loss of human resources in fields where mainly women were employed. There was also the opinion that women were in need of skills in negotiating the use of condoms by male partners who could put them at risk. In general, the group felt that women needed to be empowered and to be less dependent on males as financial providers since they could be coerced into unprotected sex when they were in powerless situations.

Campus Information Technology Services

At first, the participants here did not envision that they could influence curriculum content in the area of AIDS since they dealt with technology. As the discussions progressed, however, they felt that they could contribute by creating an AIDS information package on the university's Web site with the assistance of the library. One participant suggested that there should be more than a formal curriculum:

> The new students enter the institution at a turning point in their life, they meet new persons from across the Caribbean as well as from international areas. They are influenced by new peers; life could change for some of them. They are lacking in role models within and outside the campus, so there are various clubs on campus that should begin to deal with topics like HIV and STDs [sexually transmitted diseases], so different groups can address spirituality, safe sex and abstinence; there should be movies shown, and marathons sponsored to raise awareness of HIV/AIDS; they should be encouraged to enjoy their youth in spite of HIV. (CITS)

The UWI should be encouraged to develop informal health promotion capsules to sustain an agenda on HIV/AIDS prevention on the campus. This group discussion also emphasized a role for the UWI graduate in the workplace in terms of projecting an appropriate attitude.

The Office of the Registrar

This discussion was concerned with the need for re-visiting policies that would be impacted by the presence of HIV/AIDS. There was concern for student insurance and whether a student's HIV status should be obtained on application for admission to the university. They envisaged that there would be problems with productivity and absenteeism with the HIV-positive employee and that these issues may call for adjustments to existing policies. They predicted that there may be issues resulting among those staff members who did not want to work alongside an HIV-positive employee, although it was felt that this matter should be managed through an employee assistance programme that already existed at the UWI. In general, they raised concern for the loss of human resources in the event that students were to become infected after they had exhausted time, effort and finances in acquiring their education.

The UWI Health Services

At the time of these discussions, the Health Centre was just about to initiate aprogramme of voluntary counselling and testing for HIV among students, but the staff at the discussion also raised concerns about infection control within their own centre.

They would want additional staff members if they were to become engaged in pre-test and post-test counselling on HIV. They admitted that they would also be challenged to respond in a new way if they came upon students who tested positive; they felt that they were not yet adequately prepared for any new circumstance. In responding to injuries on the campus, they saw the need for laboratory technicians and officers in the athletic centre to be trained in managing first aid.

> Accidents can take place; for example, at the Sports and Physical Education Centre. We need to estimate what the risks are. In boxing, handlers now put on their gloves. You don't want to seem to scorn persons but at the same time, how much have we (UWI) done with lab technicians to make them aware? (UHS)

Faculty of Medical Sciences

The challenge to the Faculty of Medical Sciences was to change the attitude of health professionals to deal with HIV/AIDS. At the time, the programmes at the faculty related to degrees in medicine, veterinary sciences, dentistry and pharmacy. AIDS education was already being addressed in the curriculum but not in a comprehensive or coordinated manner. During the clinical years, the World Health Organization protocol for needle-stick injuries was mandatory. Medical students at this time also conducted a rotation through the AIDS/STD Counselling Centre of the Ministry of Health. Dental students already practised universal infection control. Pharmacy students fully covered topics on virology and the treatment of AIDS in pharmacology. It was felt that through problem-based learning in the basic health sciences curriculum, however, all students could be provided with comprehensive education on HIV/AIDS, and that in current problem-based learning, problems on STDs like gonorrhea might be replaced by problems on HIV.

Faculty of Humanities and Education

This group was mainly represented by academic staff from the School of Education. To some extent, HIV/AIDS was already addressed in nursing education and family-life education courses. The group saw the need for emphasis on HIV/AIDS education in teacher education programmes, however, for there would be an opportunity for teachers to correct the several myths about HIV and sexuality that existed. If the epidemic were to continue its course, they saw that employees and students of the university, as they became affected, could be drawn into time-consuming care-giving roles that would be detrimental to their productivity and their studies.

School of Continuing Studies

The School of Continuing Studies has centres for delivering programmes in tertiary non-degree studies in campus and non-campus territories across the

Caribbean and is connected by a distance teaching network; five sites on the network exist in Trinidad and Tobago. The participants immediately realized that they had the opportunity to maintain outreach interventions not only in Trinidad and Tobago but throughout the English-speaking territories. A participant suggested that every programme in which there was a biology course could accommodate HIV/AIDS education. However, there was the recognition that cognitive features of HIV/AIDS should be addressed as well as affective areas. In this case, there should be new methodologies using creative methods like service education, which allows students to conduct projects in the society, bringing them directly in touch with the phenomenon.

UWI Security Service

These participants suggested the requirement of a policy framework that outlined parameters for their involvement, where policy should also include statements on substance use and abuse. They felt that there was a lack of basic knowledge of HIV/AIDS among security officers. They were aware of risky behaviours among students and in instances had to adopt mediation roles in a few incidences of violence in halls of residence. They recommended their need for re-training in cardiopulmonary resuscitation in the face of HIV and that condom vending machines should be placed at specific locations across the campus.

Student Guild Council

The students commended an opportunity to contribute to the idea that HIV/AIDS education should be placed on the curriculum. There was the opinion that new students came to university with a number of myths about sexuality that should immediately be addressed on entry. They acknowledged that risky behaviours were prevalent among students, and that multiple partnering existed almost as an area of experimenting. They suggested that all the foundation courses across faculties should be infused with AIDS information, and that students themselves should be involved in an informal curriculum

where they would receive funding to maintain effective health-promotion programming. They also suggested that condom vending machines should be placed in specific locations.

Recommendations from the various sub-groups across the St Augustine campus were timely. However, the question remains: Are UWI researchers ready to engage in special studies on unaccustomed cohorts whom the epidemiologists would term risk groups for infection? Such groups would include homosexuals (now included in a category defined as men who have sex with men) and commercial sex workers, both male and female (formerly termed prostitutes). It has been suspected that these at-risk groups afford the bridge for the epidemic to continue its toll in the heterosexual community. The practice of inquiry into student and faculty behaviours, which appears in perennial research on North American campuses, seems not to have caught on at the UWI, but may be another enlightening area for research studies within the UWI community.

In general, the discussions envisaged HIV/AIDS as both a developmental and a health issue where the university will be expected to provide qualified leadership and human resources to societies on an ongoing basis. The institution and its operation would also be affected as it responds to teaching, research and outreach, with the university students themselves being in settings which provide opportunities for risks and vulnerability to infection. Discussions also acknowledged that the UWI is required to create the knowledge, resources and systems for disseminating the knowledge, as is reflected in the opinions of the librarians and the information technology personnel. A main idea, endorsed by all groups, was that the UWI was late, but not too late, in creating the UWIHARP project.

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