Student Populations and Increased Educational Provision
Student Populations and Increased Educational Provision: Analyses and Responses
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Student Populations and Increased Educational Provision
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IN A BID TO PROVIDE THE HUMAN RESOURCES necessary to meet regional and national development goals, Commonwealth Caribbean countries – like others worldwide – have increased access to higher education. The need in these countries for more tertiary-level educated citizens was highlighted over 20 years ago in a 1992 World Bank study, which found that for the period 1988 to 1990, under 5 per cent of the eligible age cohort (defined as the percentage of persons aged 20–24 years) fell into this category. This was seen as particularly disturbing given the far superior enrolment rates in the nearby regions of North America, Latin America and the Spanish-speaking Caribbean. The response to this shortfall is evidenced in the jump over time in enrolment rates in Commonwealth Caribbean tertiary level institutions. In Jamaica, for example, the 1990 and 1998 figures – reportedly 4 per cent and 6.9 per cent respectively – are in stark contrast to those of 2003 (18.1%) and 2009 (32.8%) as reported by Anderson, Devonish, Bailey and Daley in this issue. This widening of access is a direct outcome of decisions taken by governments and other stakeholders in the higher education sector. In this respect, one recalls the 1997 resolution of the Caribbean Community (CARICOM) Heads of Government to increase access for the eligible post-secondary cohort in their countries from under 8 per cent to 15 per cent by 2005, and a 2007 enrolment target for Jamaica of at least 30 per cent of the 18 to 30 year age group, set in 2004 by a University of the West Indies (UWI) Mona Research and Policy Group.
The first two articles in this issue – “Differences in Student Access and Performance at The University of the West Indies between 1983 and 2010” by Anderson et al. and “Widening Participation in Higher Education: The Case of The UWI, Mona Campus” by Chisholm and Kennedy – centre on the characteristics of the UWI, Mona, undergraduate student population in the wake of the democratization of higher education in Jamaica. Conceptualized as ‘massification’ by Chisholm and Kennedy, this democratization is shown to be consonant not only with the well-known increasing numerical dominance of female students on the campus, but also with trends involving other demographic as well as non-demographic student variables, for example, age, residence (urban vs. rural), school type, and student registration status (full-time vs. part-time). Together the two papers cover a continuous twenty-year period – data in the first relating to the academic years 1983/1984 to 2009/2010, and data in the second to the academic years 2009/2010 to 2013/2014. Moreover, both sets of researchers are alike in examining the academic outcomes of the widened student population as well as its composition; however, while Devonish et al focus on cumulative grade point average, Chisholm and Kennedy consider degree completion rates and class of degree attained.

The interrelationship between school type and academic outcomes, a factor considered in the first two articles, also features in the third paper “The School Alone is not at Fault”. In critiquing the Jamaica Constabulary Force’s 2012 Education and Crime Report: Evidence from Prison Inmates, Perkins acknowledges the disparity in resource availability across school types, and the better academic performance of students from well-resourced schools; however, she presents findings of Caribbean educational research which problematize the interrelationship between the typically under-resourced non-traditional high school, such as those primarily identified in the Report, and the production by these schools of deviants, pointing to a web of socioeconomic, sociocultural, educational and learner variables associated with the academic underachievement and the incarceration of Jamaican working class males.

The last two articles shift attention away from populations – student and prison inmate – to the evaluation of language-related pedagogical initiatives taken to meet the needs of the widened intake. In “Enhancing Communicative Competence: An Audience-Centred Approach to ‘Speaking Across The Cur-
curriculum’ (SAC)”, Francis and McLaren report on the successful integration of speech and presentation skills instruction into UWI Mona science courses, underlining the role that oral communication can play in students’ learning in the disciplines. Romaña Correa uncovers the potential of computer-mediated communication – in the form of SkypeTM conference calls – to increase the oral Spanish proficiency and Hispanic cultural knowledge of UWI Mona Spanish foreign language learners. Both initiatives, and their documentation, signal interesting new ground being broken in the institution as its academic staff respond to the communication needs and technological orientation of their increasingly diverse 21st century undergraduate students.

Acknowledgement

The Writing Across the Curriculum Working Group wishes to acknowledge and thank Dr. Paulette Ramsay for her contribution to the editing of this issue of the QEF.

Notes

Abstract

This paper describes the responses of the University of the West Indies (Mona), given the need to meet the developmental challenges of Jamaica by embracing a more egalitarian and diverse student body. The study analyzes undergraduate admissions to the Mona campus between 1983 and 2010, and documents the changing composition based on age, gender, residence, registration status, faculty, previous schooling, and social class.

The paper situates the analysis of the changing undergraduate composition within the context of the pipeline created by the two-tiered secondary school system, with its differing performance levels and divergent pathways for different groups of students. Over time, the UWI has been able to become more inclusive, as the network of feeder institutions expanded. A further contribution from this study has been the examination of the factors shaping performance levels, based on GPA levels, showing that diversity was sometimes linked to uneven performance. The findings point to the need for greater support services to ensure wider academic success.

Keywords: Diversity, feeder institutions, performance levels
Introduction

The goal of significantly increasing tertiary enrolment can be an extremely elusive one in Caribbean countries such as Jamaica, where the university system represents the apex of a highly unequal education system, designed from its inception to separate the colonial elite from the mass of the population. The twentieth century has recorded the struggle to transform this system, and to increase access to both secondary and tertiary education. Both revolutions have been closely linked. As long as the secondary system was organized along dual and unequal streams, the inflow to the dominant tertiary-level institution, the University of the West Indies, relied on the output from one stream, the elite traditional high schools. The growth of higher education (HE) therefore required opening up these very selective traditional high schools, expansion of the private schools, as well as internal upgrading of the non-traditional public schools in order to create additional pathways to tertiary education. Nationally, the expansion of HE also involved greater participation by other tertiary-level institutions, which were upgraded and diversified to provide viable alternatives for those aspiring to gain college degrees. This increase in the number of tertiary-level players, evident since the mid-1990s, had the effect of eroding the dominance exercised by the University of the West Indies (UWI), and created a far more competitive environment. Urban primacy in tertiary level enrolment inevitably had to decline, as the population living outside of the main urban centre gained access to expanded opportunities for secondary schooling, and in turn sought further education to move upwards into professional careers.

The outcome for Jamaica at the end of the first decade of the 21st century was a highly differentiated tertiary landscape with a growing number of colleges and universities competing to offer undergraduate degrees. The long established giant, The University of the West Indies (UWI), now found itself with rivals for student intake and government support, while at the same time needing to respond to the increasing diversity of its student body. Diversity, however, was sometimes linked to uneven performance at the university level. To shed some light on these far-reaching changes, this paper traces the changes experienced by the UWI over three decades by examining the composition of Jamaican students admitted to first degrees at the Mona Campus between 1983 and 2010.
The study also examines differences in achievement in university-level examinations in relation to the characteristics of students.

**Approach to Enquiry**

In the paper, we first describe the structure of the educational system in Jamaica in order to establish a context for the enrolment changes which are reviewed. This review seeks to highlight what changes were made over time in the effort to implement an integrated system, and reduce the mobility blockages faced by different social classes. Given our interest in examining whether increasing diversity at the university level was accompanied by differences in performance, we provide both a cross-sectional and a multivariate analysis. The cross-sectional analysis is first discussed, and this serves to delineate both the general trends in admissions between 1983 and 2010 as well as the compositional changes. Since different faculties pursued different trajectories and initiatives over this period, the study seeks to highlight these contrasting streams. The multivariate analysis includes a focus on the impact on academic performance of age, gender, urban-rural residence, type of registration, previous schooling and faculty. The paper concludes with a brief summary of the main findings, and their implications.

**Jamaica’s Educational System: Evolution and Diversification**

There has been considerable research documenting the impact of colonial policies in establishing education systems in the English-speaking Caribbean, policies which were designed to meet the needs of the metropolitan rulers, and which systematically excluded the mass of the population (Miller 1976 and 1990; King 1987 and 1999; Cogan 1983). The goal of universal primary education was generally accepted within the Commonwealth Caribbean by the end of the 19th century, and by the mid-20th century, 80 per cent of primary school-age children were enrolled in schools (Miller 2000). However the mechanisms by which students moved from primary to secondary schools continued to act as a fine sieve through which those considered capable of further academic training were separated from their undeserving classmates. These mechanisms
were paralleled by a set of secondary school-leaving examinations, which again served to regulate movement upwards to the tertiary level. As summarized by Gordon (1991), at the beginning of the 90s, Jamaica’s education system remained a class-based, dual-track system. Despite this inheritance, critical changes took place at both the secondary and tertiary level over the last century, and these dramatically altered the pipeline for tertiary education, widening opportunities for different groups in the society. The concept of the education pipeline as discussed by Allen and Jayakumar (2012), drawing on Astin’s analogy (1993), conveys the notion that successful completion of college is “part of a larger, multifaceted process” (Allen and Jayakumar 2012, 75). The pipeline is usually observed to become more constricted at every stage, with different groups being largely eliminated from the onward flow. In Jamaica, the changes in the secondary system as well as the expansion of the tertiary level significantly improved the chances for onward mobility within this pipeline for new generations of students. These are briefly reviewed here.

Secondary Schooling

In Jamaica, the filtering mechanisms which regulated movement from primary to secondary schooling entailed the eleven-plus examinations, previously known as the Common Entrance exam (CEE), introduced in 1957, or the Grade Six Achievement Test (GSAT), in place since 1999. Performance in these examinations was the basis for assigning students to different categories of secondary schools, or alternatively, doomed them to remain until age 15 within the extended primary schools, traditionally known as the All-Age Schools. Significantly, large numbers of primary school students were never prepared or allowed the opportunity to take this decisive eleven-plus examination. Similarly, within some sections of the secondary school system, many students did not take the secondary school-leaving examinations. Over time these secondary school examinations shifted from the Cambridge Senior Level examinations, adopted in 1863, to the Cambridge General Certificate of Education examinations, and in 1979 these were replaced by the Caribbean Examinations Council (CXC) examinations. Acceptance into most tertiary institutions required a minimum
number of passes (usually four or five) in these school-leaving exams, and it was generally stipulated that English Language should be among the subjects passed.

From the early 90s, Jamaica’s secondary school system underwent a series of changes with the objective of expanding the options available to students and ensuring that there would be some degree of consistency between what was taught in the traditional high schools and the newer upgraded high schools. The upgraded high schools had slowly evolved from the Junior High Schools and New Secondary Schools by the addition of grades 10 and 11 and by the institution of a common curriculum. This was achieved through the far-reaching Reform of Secondary Education (ROSE) Project, implemented with technical support from the World Bank between 1993 and 2000. By bringing all of the secondary schools under one umbrella, the number of secondary school places grew from 78,000 in 2000 to 178,000 in 2003. In addition, from 2006, the Government of Jamaica embarked on a two-pronged strategy to rationalize and upgrade the All-Age Schools.

**University Education**

Tertiary-level institutions in Jamaica include community colleges, teacher-training colleges, professional schools and colleges, and universities. At the university level, in 2012 there were two public universities (the University of the West Indies and the University of Technology) and five private universities (Northern Caribbean University, Mico University College, the University College of the Caribbean, Hydel University, and the International University of the Caribbean). These are supplemented by off-shore universities such as Nova Southeastern University, the University of New Orleans, the University of South Florida, Temple University and the University of London. Through the combined efforts of these institutions, the gross tertiary enrolment rate (based on the population 20–24 years) reached 32.8 per cent in 2009 (Planning Institute of Jamaica 2012). This may be compared with a gross enrolment rate of 18.1 per cent in 2003. Preliminary analysis of the findings from the 2011 Census of Population also shows a marked increase in educational attainment between 2001 and 2011 (Nam 2012). The numbers of persons 15 years and
older who reported having attended a university or other tertiary institution increased from 214,288 in 2001 to 254,757 in 2011. Gender differentials were also clearly evident at this level, with 16.4 per cent of women reporting university or tertiary training, as compared with 9.1 per cent of males 15 years and older.

While the community colleges offer an associate degree, they also play an important bridging role as they allow students an opportunity to prepare for the CXC Caribbean Secondary Education Certificate (CSEC), and so qualify for acceptance into a degree-granting institution. As summarized by Walsh, “In Jamaica, the community college sector has played a major part in effecting the dramatic increase in the proportion of the population receiving tertiary education in the last two decades. They have been central to both the diversification and expansion of the tertiary level’s capacity and programme offering” (Walsh 2005, 222). The community colleges, which were first established in the mid-70s, have been directed both at preparing students for tertiary-level education as well as equipping others with occupational skills to enter the workforce. This dual function is evident from the statistics for 2010/11, which show that while the community colleges reported a total enrolment of 11,247 students, only about 40 per cent of these were enrolled in programmes which had been approved as tertiary-level by the University Council of Jamaica (Planning Institute of Jamaica 2012). Three of the eight community colleges function as multidisciplinary institutions, as they also provide teacher-training.

Equally important has been the rapid diversification of degree programmes offered by individual universities. Consequently, there has been a major re-working of the implicit division of the tertiary education market which had existed in the earlier years before the College of Arts, Science and Technology was upgraded to become the University of Technology (UTech) in 1995, and before the Northern Caribbean University (NCU) was developed in 1999 from the base of the West Indies College. Several programmes which had once been offered only by the UWI are now available at these other two universities, and while there is little difference in tuition fees, the structure of programmes at these other universities may be more flexible than at The UWI. NCU also enjoys a strategically central location in the parish of Manchester.

It is useful to note that differences in entry requirements still serve to separate
the University of the West Indies from its competitors. The student who is equipped with only five CXC CSEC passes is able to obtain acceptance into a four-year degree programme for full-time study at these competing universities. This is in contrast to UWI’s policy which offers a three-year undergraduate degree, but limits applicants with only CSEC passes to part-time study for most of its programmes. Passes at the Cambridge Advanced Level (A-Level) or the CXC Caribbean Advanced Proficiency Examination (CAPE), or an associate degree from a community college, are usually required in order to gain acceptance for full-time study at Mona. The main exception is the Faculty of Science & Technology (previously known as the Faculty of Pure and Applied Sciences) where CSEC passes allow entry to a four-year degree programme.

In discussing the growth of Jamaica’s local private HE sector, Coates (2012) has pointed to the limitations of the public HE sector and the flexibility with which private institutions have responded to the changes in demand for Jamaican HE (p. 342). He has further argued that the public HE sector had blatantly overlooked the growing non-traditional segment of the HE student population and was also reluctant to provide HE in rural and suburban locations outside of Kingston (ibid. 342). From a somewhat different perspective, Evans and Burke (2007) have observed that “the rising demand for higher education in Jamaica could not have been met with the traditional programmes and delivery methods in traditional institutions with traditional modes of operation and with resources derived from public funds” (p. 321). In this review, originally prepared for UNESCO, they point to the critical role played by distance learning and technological advances in expanding the reach of all of the Jamaican universities. Over the last five years, there have been increased efforts by the two public universities to penetrate the rural market with the establishment of other locations at the Western end of the island as well as satellite campuses in several parishes.

In the earlier years the increased competition from the newer universities was not regarded as a threat to The UWI’s intake as it was evident that most departments at Mona received more qualified applicants than they were able to accept (Hamilton and Severin 2005). This situation was still apparent in 2009 when the Mona campus accepted only 49.6 per cent of its qualified applicants (Statistical Review 2009/10). While 7739 applications were received, only 3841
were accepted. However by 2012, The UWI’s Strategic Plan listed the erosion of market share and funding, derived both from the intense competition from other tertiary institutions and the expansion of on-line programmes and distance education, among the possible threats which faced the institution (UWI Strategic Plan 2012–2017).

There is also evidence of continuing social class differentials within Jamaica in access to tertiary education. This is explained by Miller who observes that the inequities in the secondary system were transmitted to the tertiary level, since “students from the lower socio-economic categories are concentrated mainly in the types of schools that had very limited access to tertiary education either through not being articulated with the GCE/CXC examination systems or through poor performance if they are so articulated” (Miller 2000, 132). The Jamaica Survey of Living Conditions 2009 records social class disparities in enrolment at older ages, despite overall progress in enrolment levels (Planning Institute of Jamaica 2010). Among persons 19 to 24 years, enrolment moved from 7.5 per cent in 2000 to 12.4 per cent in 2009. However when examined by income level, it was observed that in 2009 only 5.7 per cent of those in the poorest quintile were enrolled in an educational institution, compared with 23.9 per cent of those in the wealthiest quintile. Geographic differences were also evident as the proportion enrolled among persons 19 to 24 years living in the Kingston Metropolitan Area (KMA) was 23.2 per cent in 2009, but stood at 3.4 per cent for other towns and 8.1 per cent for rural areas.

At its Mona Campus, the University of the West Indies has steadily expanded the enrolment of Jamaican students, with the number of students enrolled in first degree programmes more than doubling between 1981 and 2001. This figure moved from 3550 in 1981 to 7872 in 2001. By 2010, this total had reached 10,590. It should be noted that during this last decade important shifts were observed in areas of study, and in the reliance on part-time registration. Equally significant were the changing routes which students pursued in order to qualify for acceptance into the University, as well as the geographical origins of the new intake. These changes are discussed below.
Methodology

This study entails a comparative analysis of five cohorts of undergraduate Jamaican students who embarked on their first degree programmes at the Mona campus of the University of the West Indies between 1983 and 2010. The analysis builds on earlier work conducted by Anderson and Devonish² (2012), and adds two years to the series, by selecting 2007 and 2010 for detailed examination. The years selected for examination in this paper are 1983, 1995, 2003, 2007 and 2010. The selection of specific years for analysis was guided by the availability of computerized data from the University. The first year for which a dataset was available to the researchers was 1983, but it was not until 1995 that complete data on student characteristics were entered onto the system. Given the need to be able to trace final performance based on the Grade Point Average (GPA), 2010 was selected as the latest year for which this information was available, and accordingly, the 2007 cohort was included. Only new registrations are included in the data sets, and both graduate students and those who enrolled for certificate programmes are excluded. The decision to focus on new admissions, rather than total enrolment in any year, was guided by the view that new admissions best served to highlight changes in the characteristics of students, and signalled the challenges that would face the Campus within a short time. Changes at the faculty level in admission policies or actions are also quickly discerned when new admissions are examined. The numbers of new students who enrolled at Mona for undergraduate degrees in these years were as follows: 1,113 in 1983; 1,672 in 1995; 2,581 in 2003; 2362 in 2007; 3053 in 2010. Data on the new enrolment for each of these years and the subsequent academic performance of these students were made available to the researchers by the UWl and organized into data sets by the Mona Information Technology Services Unit (MITS). Identifying information such as the students’ ID numbers was suppressed in order to maintain confidentiality.

The study examines trends in both the absolute numbers of admissions and the compositional changes over the period. In addition, multivariate analysis is used to identify the factors related to performance as measured by the final grade point average (GPA) for students admitted in 2007. The analysis of changing patterns of undergraduate admissions incorporates two sets of vari-
ables: the social and demographic characteristics of the students and (b) programme characteristics. In regard to the sociodemographic variables, the focus of comparison is on five dimensions: gender, age, urban-rural residence, type of registration and school background. In examining programme characteristics, attention is paid to the faculty of registration, and the type of registration (part-time or full-time). While the School of Education is part of the Faculty of Humanities & Education, in the present analysis Education and Humanities students are examined separately. The decisions in regard to the treatment of variables are briefly summarized below.

**Urban-Rural Residence**

In order to examine the changes in area of origin, information on the student’s permanent address was used. By working with the classification of urban areas from the Statistical Institute of Jamaica (STATIN), the following categories were established: the main urban parishes of Kingston and St. Andrew; Portmore and Spanish Town; Other Major Towns; Minor Towns and Rural Areas. These four categories were further compressed into a two-fold classification: (1) Kingston and St. Andrew, Portmore, and Spanish Town and (2) Other towns and rural areas. Although urban centres such as Montego Bay are of sufficient importance to be analyzed separately, before 2003 the numbers of Montego Bay students at the Mona campus were not large enough to warrant the inclusion of an additional category. These two categories are therefore representative of a broad urban-rural distinction, with the emphasis being on the extent of urban primacy exerted by the KMA.

**School Background**

Since new entrants to The UWI may have attended more than one educational institution in the process of acquiring the qualifications needed for entry, it was decided to include two sets of information for school background. By perusing the records for the students, it was generally possible to identify the school that they had attended up to grade 11 (fifth form) and also any institution subse-
quently attended. In some cases, this latter school may have been the sixth form of the same high school; in other cases, a community college or a tertiary institution may have provided either a certificate programme or the equivalent of an associate degree to allow full-time registration. Where students did not graduate from secondary school with all of the minimum qualifications needed to obtain at least a part-time registration, they may have proceeded to private schools or community colleges to remedy these deficits. Where more than one institution is listed for the high school, the institution which was the last one attended is used in assigning the high school code. It should also be noted that this information is not readily accessed for the 80s, before computerization of student records was complete. Accordingly, the analysis of school background presented below is based on four time-points, starting with 1995.

In the analysis of educational background, the two sets of information are combined into a composite variable which combines the institution attended at the grade 11 stage with the institution subsequently attended. This serves to show the extent to which the students embarked on different routes to acquire UWI entry requirements after they had reached the grade 11 stage of secondary school. Since some students did not remain in their respective high schools to pursue the traditional A-Level examinations or the CAPE, community colleges and tertiary-level institutions offered an alternative path to obtaining equivalent qualifications accepted by The UWI for full-time study. In addition, students often had varying degrees of success at the grade 11 level, and accordingly the community colleges provided a base from which CSEC exams could be taken. In this respect, they functioned like the private high schools.

The institutions previously attended were classified into five major groups: traditional high school or technical high school; upgraded secondary school; other private secondary school; community college; tertiary level institution (TLI). This latter group includes UTech, NCU and teacher training colleges, but it also includes students who registered in the preliminary programme in the Faculty of Pure and Applied Sciences, or who had already completed first degrees at the UWI. The categories for this composite variable (educational background) are as follows: all traditional; traditional and community college; traditional and TLI; all upgraded high schools; upgraded high school; TLI or community college; other. Although UTech and NCU are now degree-granting
institutions, in this analysis, they are classified with the block of tertiary level institutions (TLIs). In general, students who attend either of these institutions before entering the UWI are accepted on the same basis as students who attended community colleges and acquired an associate degree.

**Determinants of Grade Point Average**

In assessing the overall performance of students in their undergraduate career, two measures of the Grade Point Average (GPA) are available. These are the degree GPA and the cumulative GPA. The decision was taken to base the analysis on the cumulative GPA in order to maintain some degree of consistency, when comparing faculties. The cumulative GPA also has the advantage of being available for all students, even if they have not yet completed their degree programmes. Students who seemed to have dropped out of their programmes before completing any courses other than Foundation (pass-fail) courses are excluded from the analysis. Accordingly the data set for this section of the analysis is based on 2238 students as compared with the entering cohort of 2362 in 2007.

In the present analysis, the GPA is the dependent variable, while the independent variables are age, gender, urban-rural residence, part-time or full-time registration, previous school type and faculty. For all of the variables except age, dichotomous dummy variables were created with the reference groups as follows.

- **Gender**: reference group = male
- **Area**: reference group = rural
- **Type of registration**: reference group = part-time
- **Prior school type**: reference group = all traditional
- **Faculty**: reference group = Humanities

The decision was also taken to exclude the Faculty of Law from the GPA analysis because of the small number of new admissions in the 2007 cohort. Furthermore, given the differences between faculties in the representation of practical courses within the overall degree programmes, and the contribution
which these appear to make to the student’s overall success, the impact of the faculty variable should be evaluated within this context. Differences in faculty regulations may also contribute to some of the observed differences in performance.

Findings

Changes in UWI’s Enrolment

New admissions of Jamaican students to pursue undergraduate degrees at Mona grew almost three-fold from 1113 in 1983 to reach the level of 3053 in 2010. Although there were some fluctuations over the period under review, admissions expanded to reach 3975 for the 2012/13 academic year. The changing composition of the student body, between 1983 and 2010, as reflected in new admissions is discussed below.

Faculty Growth and Contraction

To a large extent, the development of the Mona Campus is shaped from the bottom-up, as individual faculties design and gain approval for new programmes and specializations, and as they implement recruitment strategies, which reflect their own disciplinary needs or convictions. At the Campus level, the Strategic Plans speak to issues of quality, competitiveness, increased operational efficiencies as well as regional and national engagement, but do not either foster or impede faculty aspirations. While the factors influencing the flow of applications to individual faculties include the volume of the eligible output from the secondary system, individual student perceptions of market possibilities, and their relative assessment of competing institutions, this inflow also reflects the recruitment efforts by faculties and by the University through its Admissions Section. From the early years, the Admissions Section made special efforts to visit secondary schools in the deep rural areas to ensure that these students were also incorporated within the University.4

Over the period reviewed, there were significant shifts in the composition of enrolment by faculty, as shown in table 1.
Table 1: Jamaican Students Admitted to UWI (Mona) for First Degrees by Faculty, 1983–2010

<table>
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<td>2.0</td>
<td>33</td>
</tr>
<tr>
<td>Medicine</td>
<td>62</td>
<td>5.6</td>
<td>60</td>
<td>3.6</td>
<td>81</td>
</tr>
<tr>
<td>Pure &amp; Applied Sciences</td>
<td>375</td>
<td>33.7</td>
<td>396</td>
<td>23.7</td>
<td>499</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>229</td>
<td>20.6</td>
<td>672</td>
<td>40.2</td>
<td>1112</td>
</tr>
<tr>
<td>Total Admitted</td>
<td>1113</td>
<td>100</td>
<td>1672</td>
<td>100</td>
<td>2581</td>
</tr>
</tbody>
</table>
The eighties witnessed a rapid inflow of new students to the Social Sciences, as evidenced by the fact that between 1983 and 1995, this faculty almost tripled its intake, moving from 229 to 672 admissions. This increased the Social Science share from 20.6 per cent of new admissions in 1983 to 40.2 per cent in 1995. As a result, from 1995, both the Humanities and the Faculty of Science & Technology became eclipsed by the Social Sciences as the leading destination for new students. Much of the growth in the Social Sciences was derived from the expansion of Management Studies, which served as a magnet for many students, particularly as these programmes were structured to facilitate part-time study. The subsequent establishment of programmes in International Relations and in Psychology continued to provide additional hubs for the inflow of new Social Science students.

Although the Social Science dominance continued over the following decades, since 2003, the Medical Faculty has significantly increased its share of admissions by implementing changes to its programmes and its intake policies. In this faculty, admission levels were fairly stable over the first two decades reviewed, but by 2010, the intake level swelled to 490 students, accounting for 16.0 per cent of new registrations. This growth was related both to the establishment of the B.Sc. Nursing degree in 2002, as well as the decision to afford applicants to the Bachelor of Medicine/Surgery degree programme (MBBS) the opportunity to register under a fee structure which included payment of the economic cost, instead of being limited to those places supported through provisions of the University Grants Committee [UGC]. At the end of the period under review, students who were admitted to the MBBS programme (medical doctors) accounted for 248 students (representing 50.6 per cent of the new intake) while those who registered for the B.Sc. programme, which included nursing and physiotherapy, accounted for 173 students (35.3 per cent).

Far-reaching changes were also implemented by the Faculty of Law in 2009, which moved to offer the three-year undergraduate programme at the Mona campus, instead of the traditional reliance on the Cave Hill campus in Barbados for the basic Law training. As in the case of the Medical Faculty, the Law programme was expanded by offering a number of additional places which were not supported by the UGC. The impact of this expansion may be seen in the number of new admissions to the undergraduate Law programme which
increased from 55 in 2007 to 175 in 2010. The decision to increase the self-financing programme component of the degree met with some initial objections, based partly on what was perceived by some critics as a movement away from regionalism, as well as the argument that this would lead to a reversal of opportunities for social mobility in Jamaica. Since legal education had been one of the traditional routes for upward social mobility, it was argued that this increase in fees would limit such opportunities, and lead to “an accentuation of a parochial individualistic culture in the Jamaican legal profession, with a social composition that reproduces existing hierarchies in the society” (Girvan 2009).

The responses initiated by the Faculty of Science & Technology in the light of declining enrollment represented the third set of enrolment changes which were initiated at the faculty level. This faculty embarked on an aggressive outreach and recruitment drive, and between 2003 and 2010, their new enrolment moved from 499 admissions to 738 in 2010. In this year, they represented roughly a quarter (24.2 per cent) of all admissions.

Because faculties varied in the extent to which their programmes facilitated part-time or full-time study, and in the cost of their respective offerings, the differential growth or contraction of faculty enrolment had a clear impact on the overall profile of student admissions. This was evident in the characteristics of new admissions over the period, as shown in table 2.

**Gender Differentials**

A major distinguishing feature of the enrolment expansion at The UWI Mona campus since 1983 has been the increasing proportion of women registered. While females represented 56.5 per cent of the new intake in 1983, this share had grown to 72.9 per cent by 2003. There was some slight improvement in the gender balance by 2010, as the female percentage fell to 67.5, with most faculties showing an improved distribution. This gender imbalance, shown in table 2, has been the subject of frequent discussion, particularly as it appeared to reflect wider societal patterns of male underachievement (Bailey 2002; Perry 2002; Figueroa 2002 and 2004). As reported earlier, gender differentials in access and performance have been evident from the secondary school level, and
### Differences in Student Access and Performance at the UWI between 1983 and 2010

#### Table 2: Proportion of First Degree Admissions at Mona Comprising Females and Part-Time Registrations by Faculty, 1983–2010

<table>
<thead>
<tr>
<th>Faculty</th>
<th>1983</th>
<th>1995</th>
<th>2003</th>
<th>2007</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per cent female</td>
<td>Per cent part-time</td>
<td>Per cent female</td>
<td>Per cent part-time</td>
<td>Per cent female</td>
</tr>
<tr>
<td>Education</td>
<td>76.0</td>
<td>80.0</td>
<td>83.8</td>
<td>85.7</td>
<td>79.6</td>
</tr>
<tr>
<td>Humanities</td>
<td>76.3</td>
<td>59.3</td>
<td>82.9</td>
<td>76.8</td>
<td>40.4</td>
</tr>
<tr>
<td>Law</td>
<td>60.0</td>
<td>53.3</td>
<td>85.3</td>
<td>81.8</td>
<td>85.5</td>
</tr>
<tr>
<td>Medicine</td>
<td>46.8</td>
<td>8.3</td>
<td>85.3</td>
<td>81.8</td>
<td>85.7</td>
</tr>
<tr>
<td>Pure &amp; Applied Sciences</td>
<td>39.7</td>
<td>48.2</td>
<td>48.2</td>
<td>40.2</td>
<td>75.2</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>50.7</td>
<td>27.1</td>
<td>71.9</td>
<td>76.6</td>
<td>40.4</td>
</tr>
<tr>
<td>Total Admitted</td>
<td>56.5</td>
<td>56.5</td>
<td>59.3</td>
<td>59.3</td>
<td>59.3</td>
</tr>
</tbody>
</table>

---

*Student Populations and Increased Educational Provision*
are undoubtedly related to patterns of gender socialization (Branche 1998; Brown & Chevannes 1998, Chevannes 2001; Evans 1999; Parry 1996) as well as occupational segregation (Gordon 1987; Bailey & Ricketts 2003).

Age Composition

In tandem with these changes in faculty enrolment was the shift to a much more youthful age-structure, as increasing numbers of secondary school graduates sought to pursue university degrees once they had acquired the entry requirements (see table 3).

From table 3, it may be seen that between 1983 and 2010, the mean age for new admissions fell to 21.1 years from 23.1 years. There were also marked faculty variations, with the mean age for new admissions in 2010 ranging from 27.8 years for the School of Education students to 19.5 years for those in the Faculty of Science & Technology. Significantly, the percentage of students who were still in their teens increased from 39.7 per cent of all new admissions in 1983 to 56.5 per cent in 2003, and their share stood at 60.8 per cent in 2010.

Table 3: Age Distribution of Jamaican Students Admitted to First Degree Programmes at Mona, 1983–2010 (per cent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 19 years</td>
<td>39.7</td>
<td>41.1</td>
<td>56.5</td>
<td>65.4</td>
<td>60.8</td>
</tr>
<tr>
<td>20–24 years</td>
<td>29.1</td>
<td>28.5</td>
<td>18.3</td>
<td>18.6</td>
<td>26.0</td>
</tr>
<tr>
<td>25–34 years</td>
<td>24.3</td>
<td>19.4</td>
<td>17.1</td>
<td>10.7</td>
<td>9.3</td>
</tr>
<tr>
<td>35 and older</td>
<td>6.9</td>
<td>10.9</td>
<td>8.1</td>
<td>5.3</td>
<td>3.9</td>
</tr>
<tr>
<td>Total per cent</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Number</td>
<td>1112</td>
<td>1672</td>
<td>2581</td>
<td>2362</td>
<td>3053</td>
</tr>
<tr>
<td>Mean Age</td>
<td>23.1</td>
<td>23.7</td>
<td>23.2</td>
<td>21.3</td>
<td>21.1</td>
</tr>
<tr>
<td>S.D.</td>
<td>6.3</td>
<td>7.6</td>
<td>7.0</td>
<td>6.1</td>
<td>5.4</td>
</tr>
</tbody>
</table>
In the Faculty of Science & Technology, teenagers comprised close to four-fifths (78.9 per cent) of all new admissions in 2010, and it was only in the School of Education that persons 25 and older accounted for the majority of new admissions. This had considerable implications for the types of campus programmes required for student orientation and wellness, both at the faculty and campus level. Part-time students were on average older than those who entered on a full-time basis, as their mean age was 25.4 years in 2010 compared with 20.3 years for full-time students.

Urban Primacy

While some of the demographic changes in the student body reflect the underlying changes in the population, there are also signs that over the last three decades, the UWI has become less reliant on the main urban parishes of Kingston and St. Andrew for recruitment, with its student body now being drawn from a wider geographical area. These changes are highlighted in table 4, which shows a dramatic shift over the period.

In 1983, three out of every five new admissions (59.9 per cent) lived within the two parishes of Kingston and St. Andrew, but by 2010 this had contracted to 35.2 per cent. This shift also reflects the westward movement of population into the densely populated areas of Portmore and Spanish Town in St. Catherine, reflecting the extent to which the establishment of the Portmore housing developments provided an avenue for a major redistribution of the urban population. Census data show that the population of Portmore grew from a tiny base of 2,200 persons in 1970 to number 67,000 in 1982; this reached 154,500 in 2001. The most recent census recorded a population of 182,200 in 2011 in Portmore, and a population of 147,200 in Spanish Town (Statistical Institute of Jamaica 2012). As may be expected, the share of new students admitted from Portmore and Spanish Town increased, growing from 10.3 per cent in 1983 to 19.5 per cent in 2010.

In order to gain a clear view of the declining urban primacy which has characterized Mona’s intake over the three decades, it is also useful to look at the increasing share of new students who were drawn from other major towns, as well as from minor towns and rural districts. In the case of other major towns,
### Table 4: Jamaican Students Admitted to First Degree Programmes at Mona by Area of Residence, 1983–2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per cent</td>
<td>Number</td>
<td>Per cent</td>
<td>Number</td>
<td>Per cent</td>
<td>Number</td>
<td>Per cent</td>
<td>Number</td>
<td>Per cent</td>
</tr>
<tr>
<td>Kingston &amp; St. Andrew</td>
<td>607</td>
<td>59.9</td>
<td>632</td>
<td>40.5</td>
<td>857</td>
<td>35.6</td>
<td>908</td>
<td>39.1</td>
<td>1056</td>
<td>35.2</td>
</tr>
<tr>
<td>Portmore &amp; Spanish Town</td>
<td>104</td>
<td>10.3</td>
<td>333</td>
<td>21.3</td>
<td>560</td>
<td>23.3</td>
<td>489</td>
<td>21.0</td>
<td>584</td>
<td>19.5</td>
</tr>
<tr>
<td>Other Major Towns</td>
<td>168</td>
<td>16.6</td>
<td>347</td>
<td>22.2</td>
<td>544</td>
<td>22.6</td>
<td>434</td>
<td>18.7</td>
<td>805</td>
<td>26.8</td>
</tr>
<tr>
<td>Minor Towns &amp; Rural Districts</td>
<td>135</td>
<td>13.3</td>
<td>249</td>
<td>16.0</td>
<td>444</td>
<td>18.5</td>
<td>493</td>
<td>21.2</td>
<td>554</td>
<td>18.5</td>
</tr>
<tr>
<td>Total</td>
<td>1014</td>
<td>100</td>
<td>1561</td>
<td>100</td>
<td>2405</td>
<td>100</td>
<td>2324</td>
<td>100</td>
<td>3015</td>
<td>100</td>
</tr>
</tbody>
</table>
which included Montego Bay, the share of new admissions grew from 16.6 per cent in 1983 to 26.8 per cent in 2010. In the specific case of Montego Bay, new admissions to the Mona campus accounted for only 23 students in 1983. However by 2010 this had increased to 238 students, facilitated by the establishment of the Western Campus as a branch of the Mona campus at that end of the island. Areas classified as minor towns and rural districts also increased their representation, moving from 13.3 per cent in 1983 to 18.5 per cent by the end of the period.

School-to-School Transitions

The changing composition of inflows to the Mona Campus may best be understood within the context of the institutions which served as feeders to the university. These included the secondary schools, the community colleges and the tertiary-level institutions. Table 5 shows the combined educational background of new admissions between 1995 and 2010.

Table 5: School Background of Jamaican Students Admitted to Mona for First Degrees, 1995–2010

<table>
<thead>
<tr>
<th>Combined prior schooling</th>
<th>1995</th>
<th>2003</th>
<th>2007</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>All traditional</td>
<td>53.6</td>
<td>61.8</td>
<td>48.4</td>
<td>64.3</td>
</tr>
<tr>
<td>Traditional &amp; community college/Other</td>
<td>15.0</td>
<td>17.0</td>
<td>7.3</td>
<td>12.7</td>
</tr>
<tr>
<td>Traditional &amp; tertiary level</td>
<td>22.2</td>
<td>20.2</td>
<td>26.7</td>
<td>11.8</td>
</tr>
<tr>
<td>All upgraded high schools</td>
<td>0.6</td>
<td>0.2</td>
<td>1.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Upgraded high &amp; TLI or community college/Other</td>
<td>6.1</td>
<td>0.4</td>
<td>2.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Other</td>
<td>2.5</td>
<td>0.4</td>
<td>13.3</td>
<td>5.1</td>
</tr>
<tr>
<td>Total Per cent Number</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Number</td>
<td>1427</td>
<td>2471</td>
<td>2324</td>
<td>2906</td>
</tr>
</tbody>
</table>
It is apparent that almost two-thirds (64.3 per cent) of all new students admitted in 2010 had obtained the requirements for entry based entirely on attendance at a traditional high school, while an additional 12.7 per cent had combined a traditional high school with subsequent attendance at a community college or a private high school. Those who moved from the traditional high school to a TLI accounted for 11.8 per cent of admissions. In total, therefore, close to nine-tenths (88.8 per cent) of all admissions had attended a traditional high school at some point, even if they had not obtained all of the entry requirements there. Six per cent had attended an upgraded high school while 5.1 per cent had attended private high schools. This may be compared with 1995, when 91 per cent of new admissions had attended a traditional school at the secondary level. It is evident therefore that in 2010, the core of the feeder system still revolved around the traditional high schools. Nevertheless, in 2010 there was considerable diversity in the routes pursued by different categories of students.

While urban-rural differences were not pronounced with regard to having ever attended a traditional high school, it was observed that students from rural backgrounds were more likely than urban students to have combined a traditional school with subsequent attendance at a community college or TLI. Among urban students, 71.1 per cent attended only a traditional school while an additional 18.9 per cent had combined a traditional school with later community college or TLI enrollment. Among rural students, the matching proportions were 56.6 per cent with only a traditional school background, and 31.3 per cent with a combination of a traditional high school and a TLI or community college. Since several traditional high schools in rural areas do not have the sixth forms which provide an opportunity to take the CAPE exam, this is a familiar schooling combination outside of the Kingston Metropolitan Region.

**Factors Shaping Performance**

The UWI’s need to expand access and increase opportunities for previously excluded groups has also raised an urgent question of whether performance levels can be maintained in light of the increasingly diverse social backgrounds...
and uneven educational foundation of new entrants. Two earlier studies (Handa & Gordon 1999; Cheesman, Simpson & Wint 2006) have sought to assess the impact of student characteristics on performance at UWI. Handa and Gordon, employing a probit model, sought to address frontally the question of whether the large expansion in the number of part-time students in the Social Science faculty during the nineties was linked to higher failure rates. They examined failure rates for entry-level courses for four years (1991 to 1994) and concluded that even after controlling for differences in gender, age, choice of major and pre-entry qualifications, part-time students were significantly more likely to experience failure. They argued that full-time and part-time students attended UWI for fundamentally different reasons, with the part-time students being older, already employed and interested mainly in certification to achieve job mobility.

A later study, conducted by Cheesman, Simpson and Wint (2006), focused on the class of degree for a sample of students who graduated in 2004. Using a regression model, they assessed the impact of age, gender, area of residence, entry-level qualifications, prior schooling, type of registration, residence on or off campus, financial assistance and faculty. They concluded that the students who were more likely to perform at a higher level were female, enrolled full-time, living off-campus and more likely to have applied for financial aid. Significantly, this study did not find that age was an important factor related to class of degree when other factors were held constant.

The present study utilizes the cumulative GPA for students as the dependent variable, and has the advantage of being able to separate students in the School of Education from the rest of the students in the Faculty of Humanities & Education. The analysis found clear evidence of differences in mean GPA levels in relation to the independent variables employed in the regression model. These include gender, age, urban-rural residence, type of registration, previous schooling and faculty. This is shown in table 6.

These mean values are intriguing since they appear to provide support for previous findings regarding gender differences in performance, as well as the handicap created by part-time registration. To illustrate, women reported a mean cumulative GPA of 2.39 as compared with 2.03 for male students. Full-time students averaged 2.35 in contrast to 1.91 for part-time students.
However, table 6 also shows that rural students (those living outside of Kingston, St. Andrew, Portmore and Spanish Town) had higher GPA averages than those in the main urban area. This was 2.41 for rural students and 2.21 for their urban counterparts. Also of significance are the higher mean GPAs for students who were admitted to Mona on the basis of secondary schooling at a
traditional high school followed by attendance at a TLI, when compared with those who had completed all of their schooling at a traditional high school. For those who had previously attended a TLI, the mean GPA was 2.56 as compared with 2.18 for those whose prior schooling was based entirely on the traditional high school.

The School of Education displayed the highest mean GPA (2.94), which may in part be related to the impact of the Practice Teaching courses on the overall score. Comparative faculty means were 2.18 for Humanities, 2.35 for Social Sciences, 1.82 for Science & Technology and 2.88 for Medicine. These differences in performance by faculty are also supported by data provided by MITS which showed that among students who graduated in 2012, 17.7 per cent of students in Education obtained first class degrees as compared with 13 per cent in Humanities, 10.8 per cent in Social Sciences, and 7 per cent in Science & Technology.

Since each of these independent variables is linked with compositional differences in the sample, and these factors may differ for faculties, the contribution made by the regression analysis is of considerable value. These results are shown in table 7, which provides an assessment of the model for the entire sample.

The findings from this analysis show that the six factors are able to explain 20.9 per cent of the variation in cumulative GPA scores, based on the R square for the model. This is slightly lower than the outcome achieved by Cheesman et al. (2006) where the nine independent variables accounted for 24.4 per cent of the variation. However this earlier study examined the degree obtained by students, and included additional variables not examined in the present study.

The examination of the relative impact of individual independent variables, based on the regression coefficients, is also revealing, and serves to refine some of the general preconceptions surrounding student performance. Gender is significant for the sample as a whole (b = .209), and indicates that while women do perform at a higher level than their male counterparts, the difference is relatively small when other variables are held constant; that is, after adjusting for all other variables, the GPA for female students was .21 points higher than that for male students. The findings regarding higher GPAs in relation to full-time enrolment are consistent with earlier analyses, with a coefficient of .38. Younger
students are somewhat more likely to report higher GPAs, as age is a significant variable in relation to performance for the sample as a whole. However, the impact is quite weak (b = –.011). It is worth noting that in the earlier study of Social Science students by Handa and Gordon, it was found that the probability of failure increased steadily with age. In the present study, post-hoc tests estab-

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Full model Unstandardized coefficient (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.011** (.004)</td>
</tr>
<tr>
<td>Gender (reference = male)</td>
<td>.209*** (.042)</td>
</tr>
<tr>
<td>Area (reference = rural)</td>
<td>-.091* (.039)</td>
</tr>
<tr>
<td>Full-time /PT (reference = part-time)</td>
<td>.377*** (.062)</td>
</tr>
<tr>
<td>Prior school attended (reference = traditional high school)</td>
<td></td>
</tr>
<tr>
<td>Traditional high school &amp; community college</td>
<td>-.006 [n. s.] (.076)</td>
</tr>
<tr>
<td>Traditional high school &amp; TLI</td>
<td>.378*** (.045)</td>
</tr>
<tr>
<td>New secondary and upgraded high schools</td>
<td>.021[n.s.] (.067)</td>
</tr>
<tr>
<td>Faculty (reference = Humanities)</td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>.616*** (.067)</td>
</tr>
<tr>
<td>Science &amp; Technology</td>
<td>-.428*** (.057)</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>.204*** (.051)</td>
</tr>
<tr>
<td>Education</td>
<td>.631*** (.115)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.894 *** (.122)</td>
</tr>
<tr>
<td>R²</td>
<td>.209</td>
</tr>
</tbody>
</table>
lished that the age advantage was with students in the age-group 20–24 years.

The findings from the present study also serve to rebut the general belief in the superior performance of urban students, as the analysis shows that rural students achieve slightly higher GPAs than their urban classmates \(b = -.091\). With other factors held constant, urban students report GPAs which are .09 points lower than those of rural students. In regard to prior school attendance, the analysis further serves to highlight two little-recognized patterns. The first observation, based on table 7, is that when a comparison is made with students who have attended only a traditional high school, a stronger undergraduate performance is displayed by those whose prior schooling combined a traditional high school with attendance at a TLI \(b = .38\). The second finding that deserves acknowledgement is the lack of any significant performance differential between those who attended only traditional high schools, and those who moved to community colleges after attending a traditional high school. In light of our earlier discussion of the important bridging role which the community colleges have come to play over the last two decades, these findings may serve as validation of the government’s educational policies and investments.

The faculty differences in performance are perhaps the most startling to emerge from this study. The regression analysis showed that when all other compositional differences were held constant, and Humanities was used as the reference group, Education students had the highest GPAs \(b = .631\) followed by students in the Faculty of Medicine \(b = .616\), with Social Science students trailing behind \(b = .204\). In contrast, the students in the Faculty of Science & Technology routinely recorded lower GPA values than Humanities students \(b = -.428\). To the extent that faculties may differ in their grading practices, it may not be possible to argue that there are inherent differences in student performance.

The fairly low explanatory power of our model points to the fact that there are several other variables shaping performance which are not included here. Variables which proved to be significant in the study by Cheesman et al., such as the receipt of financial assistance, could possibly strengthen the present model, if included. However, it is recognized that there may be several unmeasured factors, such as individual motivation or parental influence, which also contribute to differences in UWI undergraduate performance.
Discussion

This analysis of the changes in the undergraduate intake at the Mona campus of UWI spans a period close to three decades, 1983 to 2010. During this period, far-reaching transformations took place in the external context of the University. Dominating these changes were the economic contractions ushered in by the 1970s, and the subsequent implementation of Structural Adjustment programmes. These served to alter both the price and the direction of education. Over the first two decades, 1983 to 2003, UWI greatly increased its enrolment, benefiting from the earlier expansion of the secondary school system and the growth in feeder institutions. Change was evident not only in the volume of admissions, but also in the composition, as the new inflows were drawn from a larger geographic area, and a wider range of schools. The country’s huge investment in education, evident in the growing network of secondary institutions and community colleges beyond the KMA, provided an expanded base for recruitment, and led to a steady flow of admissions to the Mona Campus. Between 1983 and 2010, total undergraduate admissions grew from 1113 students to 3053, and those from the rural areas grew from 303 to 1359. This represented an increase in the rural share from 29.9 per cent to 45.3 per cent.

The advances which have been achieved in Jamaica’s educational landscape over the last three decades have been the result both of structural changes at the secondary and tertiary level, as well as the expansion of opportunities to social groups whose access was previously limited because of geographical location, social class or type of schooling. The education pipeline has become expanded, diversified and also better integrated. The expansion in UWI Mona’s undergraduate intake reflects not only the increasing demand for first degrees, based on their market value, but also faculty-driven programme expansions, the establishment of a satellite campus in western Jamaica and modifications in admission policies. Nevertheless, in the effort to respond to market demand, and faced with increasing competition from other tertiary education providers, the University faces the risk of over-production in some professional disciplines or of diluting standards where numbers exceed physical capacity. This is a particular risk where policies guiding student admissions are faculty-driven, and where there is no national agreement on manpower needs.
In addition, it is evident that at the UWI Mona Campus, the incorporation of larger numbers of undergraduate students with varied histories has sometimes generated new and perhaps unanticipated challenges. While expanding access, The UWI also has to be sensitive to the social and psychological needs of its clientele. The mixed educational background of students has been evident in a range of issues that include inadequate language skills and the need for remedial education (Chevannes 2004; Beckles, Perry and Whiteley 2002), financial hardships, male academic under-achievement, problems of well-being, and the need for emotional support (Ramkissoon and Ffrench 2003).

The increasing social diversity of UWI’s intake has inevitably raised the question of whether diversity would be related to a dilution of standards and lower performance levels (Robotham 2000). Different types of schools still experience disparities in resources, and students from different social classes may have been exposed to family and community contexts that were not fully supportive of their education aspirations. The results of the multivariate analysis on the correlates of academic performance among the cohort that was admitted to Mona in 2007, established that the most important factors which shaped performance levels were gender, type of registration, previous schooling and faculty, with age and urban-rural residence having only a minor influence. Undergraduate students who were likely to show the strongest performance were more likely to be female, registered full-time, having prior attendance at a TLI, and enrolled either in the School of Education, or in the Faculty of Medicine or of Social Sciences. Younger students, and specifically those in the 20–24 age-group, were also slightly more likely to report higher GPAs. The study also found some tentative evidence to suggest that rural backgrounds were more conducive to HE performance, although in Jamaica rural areas have traditionally been associated with greater poverty. This performance differential may in fact reflect some greater selectivity among the rural cohort, so that the socio-economic levels of these students may on average be equal to or higher than their urban counterparts.

This review of the changing profiles of undergraduate admissions to The UWI serves to highlight both the shifts in demand for HE, as well as the chances of success once students join the undergraduate body at Mona. While analysis of the data on admissions allows one to work backwards to delineate changes,
there are also factors at the policy level which may be predictive of future change, and which could serve to provide support for improved student performance. These factors may be identified both through focused enquiries directed at currently enrolled or former students, and through reconstruction of the philosophies which guided specific innovations. A viable programme of institutional research requires this kind of integrated analysis.

Notes

1. The University of the West Indies was established in 1948 as a College of the University of London. The first campus was at Mona in Jamaica.
2. This earlier analysis was published in a collection of international studies edited by Allen, Teranishi and Bonous-Hammarth (2012), but was limited to the period 1983–2003.
3. Although sections of St. Andrew are rural, for the purposes of this analysis, the entire parish is here classified as urban.
4. A former Senior Assistant Registrar, Winston Davis, described “the hope, confidence and hard work which characterized the efforts of that never-tiring Admissions band”. Personal communication, November 2004.
5. This faculty was previously known as the Faculty of Pure and Applied Sciences.
6. The degree in Nursing is now offered both at Mona and at the Western Campus, and in collaboration with three community colleges.

Acknowledgements

The authors wish to extend sincere thanks to Mr. Garvin Gordon (Mona Information Technology Services) who prepared data-sets and provided advice and supplementary data. In addition, appreciation is expressed to the Jamaica National Building Society and to the Human Resource Development Graduate Programmes in the Department of Sociology, Psychology and Social Work for their financial support for research assistance.
References


Differences in Student Access and Performance at the UWI between 1983 and 2010


Abstract

Within the context of the widening of participation in higher education and massification, this case study presents emerging trends at The University of the West Indies, Mona Campus. Using archived institutional data, the authors provide evidence of increased enrolment and of the major characteristics of the student body, one which is predominantly female, Jamaican, of traditional college age and financially needy. The implications of these characteristics in relation to best practices in teaching and learning are discussed. Recommendations are offered for better pedagogical approaches, academic advising and measures to deal with the increasing diversity.

Introduction

‘Massification’ is now a very popular term in higher education. It calls attention to the movement from a higher education (HE) system that was largely catering to a few and mostly to the more privileged of the society to an all-inclusive or mass system of education. In fact, the change from an elite to mass systems of HE in the developed world in the last decade of the twentieth century has led to efforts in developing countries to widen participation in HE. Massification has transformed the HE scene from that of elitism which existed in the early 20th century to one of almost wide-open access. This expansion in
the provision of HE is fundamentally transforming its very nature in terms of its structure, purpose, and its social and economic role (OECD, 1998; UNESCO, 1998). In fact, there has been strong quantitative growth in enrolment in HE in the Anglophone Caribbean over the last 15 years, and there has been a shift in the perception of many from seeing participation as a privilege to seeing it as a right. This has also led to calls for qualitative changes in institutions of HE for which the functions and structures of HE in the Caribbean have had to, and continue to be adapted. This qualitative change has been sounded most loudly in the domain of teaching and learning, especially in relation to how universities are being challenged to respond to the needs of a more diverse group of learners.

It must be borne in mind that massification is not merely about increasing access. In the Caribbean, access has been expanded in significant ways. There has been the addition of public/national universities and colleges and several private institutions of HE. In the Anglophone Caribbean, there is now a diverse set of institutions, colleges, universities and other outfits offering HE or offering post-secondary education. Massification in the Caribbean has also seen the private sector playing a more important role since several private institutions have sprung up or have come across the borders from outside the region to provide HE and now are in competition with the traditional providers. Hence, the competition for students is truly strong and this is a part of the conversation on increased access and clearly a contributory factor in the higher levels of diversity in institutions of HE in the Caribbean.

Within the context of these changes in HE and in particular increased enrolment, this paper explores the composition of the increasingly diverse student body at the premier university in Jamaica. Accordingly, the purpose of this paper is to look at widening participation in HE and, in particular, how this is being manifested in this regional university in Jamaica. The main concerns are with the resultant diversity in terms of the characteristics of the students attending this institution. In seeking to understand the trends associated with the widening participation, a case study research design was developed to look especially at student enrolment and the characteristics of the students. This was particularly necessary to understand how massification has been leading to diversification in the student intake and the implications of this for HE.
The focus of this paper is the undergraduate student; the first section of the paper provides an overview of general demographic trends, overall numbers by Faculty and break-downs of the population by sex, registration status, age, country of origin and last educational institution attended. Then we provide indications of students’ academic outcomes in the form of student throughput and class of degree. The final section engages the major trends, implications and recommendations.

Theoretical Perspectives

The theoretical perspective for the study is rooted in massification studies and the elucidation of the developments in HE within this framework, including massive universities, market-oriented reforms and the diversification of the composition of the student body. Generally, the term ‘massification’ is attributed to Trow (1972). He distinguished three phases in the development of HE systems: the elite stage, the massification phase, and the universal access phase. Brennan (2004) added to this understanding of the stages and offered ten characteristics that helped one to recognize the movement in HE systems from one phase or stage to another. These characteristics were access, function, curriculum and instruction, graduates ‘career’, institutional characteristics, locus of power and decision making, academic standards, selection for enrolment, academic administration and internal administration. From Trow’s work, it has been generally accepted that in the massification phase, over 15 per cent of the age cohort is participating in the HE system. However, it must be recognized that the concept of massification is understood in a broad way. In this regard, it includes the following aspects:

1) the quantitative gains of higher education, especially in relation to doubling or tripling enrolment (Scott 1995; Tessema 2009)
2) the training of students for work rather than for life
3) the availability of curriculum and instruction in multiple modalities (Blackmore 2001; Bryson 2004)
4) the empowerment of the system to transfer the burden of the cost of higher education to the student, usually away from the state (Blackmore 2001; Bryson 2004)
5) the offering of diverse fields of studies and credentials in response to market demands (Hirtt 2004).

In the literature on massification, massifying forces have been recognized. Fuller (1991) provides an explanation of three views. From the functionalist perspective, massification is seen as part and parcel of the process of modernization, with secular institutions being built to take over the place hitherto held by local groups and ethnic groupings. In contrast, those from the conflict or class imposition perspective see the economic interest as the primary factor in the cause of massification. This differs from the world institution view which calls attention to the similarity between states and institutions of HE. Educational institutions are considered to play symbolic roles to legitimize the polity.

Research Questions and Research Methodology

It is well known that expanding HE in developed societies has led to a more heterogeneous composition of students in relation to gender, age, educational backgrounds, family backgrounds life situations, motivation to study and other variables (Schuetze and Slowley 2003). The study posed the research question ‘Who are the students of the University of the West Indies (UWI) Mona Campus?’ To obtain responses to this question, various characteristics of the participants were examined, for instance, gender, age (traditional vs. nontraditional) and the feeder schools from whence they matriculated.

The study was conducted using archived data from the Office of Planning and Institutional Research (OPAIR) in the Office of the Principal at UWI Mona. Using the archived data, the paper seeks to determine who our students are in terms of general demographics, educational backgrounds and academic performance during their intramural years, and to take note and make sense of the emerging trends. Accordingly, the archived data were studied and analyzed using procedures associated with documentary analysis. Further, the data were scrutinized for trends and descriptive statistics were used to elucidate the findings.
Findings

**Overview of General Selected Trends in Widening Participation**

In this section, The UWI Mona enrolment findings are presented. Further, information is provided to demonstrate how widening participation looks, especially with respect to gender and age, and generally the emerging diversity of the student body.

**The Mona Undergraduate Population: Distribution by Faculty**

In 2012–2013, 12,911 (or 79.4 per cent) of the total student body of 16,265 were undergraduate students. This represented an increase in the overall undergraduate population of 4.3 per cent, over 2011–2012. As shown in figure 1, this trend of increases has continued from 2009–2010. The largest percentage increase in enrolment over the previous year in the period was recorded in 2011–2012, with a 5.6 per cent increase over 2010–2011. The numbers achieved in this year were impressive, not only because of the shrinking econ-

![Figure 1: Increases in undergraduate enrolment](Source: OPAIR)
onomy and continued slashes in Government funding but also, and particularly so, given the only very slight increase of 0.96 per cent experienced in 2010–2011 over the year before.

There are five faculties at The UWI, Mona: Humanities & Education, Law, Medical Sciences, Science & Technology, and Social Sciences. Programmes offered in Gender & Development Studies are usually accounted for separately since they do not constitute a faculty. However, they work closely with the Faculty of Social Sciences. Figure 2 shows that in 2012–2013, the Faculty of Social Sciences accounted for 38.8 per cent of total undergraduates at Mona and the faculties of Medical Sciences and of Science and Technology (combined) for 40.2 per cent.

Trends in total enrolment by faculty over the years indicate that the numbers in Social Sciences have remained stable; because of overall increases in student numbers, however, they suffered a slight loss in their share of the total population (38.6 per cent) in 2009–2010. Medical Sciences and Science & Technology continued to attract new students over the period. They have expanded programme offerings to include a DDS (Dentistry), a B.Sc. in Medical Physics and Bio-engineering, a double major (B.Sc.) in Mathematics and Modelling.

Figure 2: Enrolment by Faculty, 2012–2013
Source: OPAIR
Processes, and a B.Sc. in Tropical Horticulture (OPAIR). There were increases (though with small bases) of 63.4 per cent in the Faculty of Law with the introduction of the full three-year programme at Mona in 2011–2012, and an exponential growth of 322.6 per cent for the Institute for Gender & Development Studies, as a result of thrusts to increase numbers (OPAIR). Student numbers in the Faculty of Humanities & Education have declined by 14.0 per cent overall, with numbers fluctuating over previous year as follows: in 2010–2011, -6.0 per cent; 2011–2012, -1.4 per cent and 2012–2013, -7.1 per cent (OPAIR). It is believed that this decline is likely to be in keeping with downward economic trends alongside the perception that an education in such fields does not prepare a student adequately for the job market.

**Gender Imbalance and Registration Status**

There is a great gender imbalance at The UWI Mona Campus as is the case in many institutions of HE in the USA, Canada and the wider Caribbean. The vast majority of the students are female, continuing a trend of dominance over the years, albeit with a slight downward movement, as is shown in figure 3.

*Figure 3: Total student population by gender, 2009–2013*

*Source: OPAIR*
There are some faculties where the scarcity of males is more acute than in others. With regard to the undergraduate student population, the archived data from OPAIR, show that in 2011–2012, Pure & Applied Sciences (now Science & Technology) was the faculty with the majority of males at 47.1 per cent, achieving near gender equality. In contrast, the lowest percentage of males was found in Law (24.5 per cent), less than a percentage point behind Humanities & Education (24.9 per cent). Only a quarter (25.6 per cent) of Medical Sciences students were male.

Interestingly, there was a larger percentage of males registered as part-time students than there were as full-time in all Faculties except for Social Sciences, where there was a marginal difference of 1.9 per cent. As indicated in table 1, in 2011–2012, males dominated the part-time population in the Faculty of Pure & Applied Sciences (now Science & Technology), and had greater representation among part-timers in Gender & Development Studies and Humanities & Education.

Reference was made to this trend of a higher percentage of men in the part-time programmes at UWI Mona by Cooper (2007), with a suggestion that the cause was that often men cannot afford the luxury of full-time study. This is

Table 1: Full-time vs. Part-time Registrations, 2011–2012

<table>
<thead>
<tr>
<th>On-Campus Students</th>
<th>Full-Time</th>
<th>Part-Time</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Males</td>
<td>% Males</td>
<td>%</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Humanities &amp; Education</td>
<td>24.1</td>
<td>31.9</td>
<td>7.8</td>
</tr>
<tr>
<td>Pure &amp; Applied Sciences</td>
<td>43.2</td>
<td>60.5</td>
<td>17.3</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>34.7</td>
<td>32.9</td>
<td>–1.9</td>
</tr>
<tr>
<td>Gender &amp; Development Studies</td>
<td>25.3</td>
<td>39.7</td>
<td>14.4</td>
</tr>
<tr>
<td>Total</td>
<td>32.7</td>
<td>35.6</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Source: OPAIR
an interesting observation. It is important to note, however, that the part-time population is far smaller overall than the full-time population (see figure 4). Part-time students accounted for only 15.6 per cent of undergraduate students in 2011–2012, and though males dominate those registered as part-time in the Pure & Applied Sciences, that group represented a mere 5.0 per cent of all students in that faculty.

**The Predominance of Young Adults**

As shown in table 2, 83 per cent of the on-campus undergraduate population in 2012–2013 comprised recent high school graduates who were 24 years old and under, of which 29 per cent were under 20 years old. The trend has been for these age groups to be increasing, with a concomitant decrease in older students.
Table 3 shows that the numbers of entrants into undergraduate programmes in the 24 and under age range increased: 90 per cent in 2012–2013, up from 83 per cent in 2009–2010.

Table 2: Undergraduate (on-campus) Student Population by Age Group

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Under 20</td>
<td>28%</td>
<td>27%</td>
<td>28%</td>
<td>29%</td>
</tr>
<tr>
<td>20–24</td>
<td>51%</td>
<td>54%</td>
<td>54%</td>
<td>54%</td>
</tr>
<tr>
<td>25–34</td>
<td>15%</td>
<td>14%</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>35–44</td>
<td>5%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>45–54</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>55+</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>10,258</td>
<td>10,632</td>
<td>11,400</td>
<td>12,084</td>
</tr>
</tbody>
</table>

Source: OPAIR

Table 3: First degree entrants by age group

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>24 &amp; Under</td>
<td>82.7%</td>
<td>86.6%</td>
<td>88.8%</td>
<td>89.5%</td>
</tr>
<tr>
<td>25–34</td>
<td>12.2%</td>
<td>9.6%</td>
<td>7.8%</td>
<td>7.0%</td>
</tr>
<tr>
<td>35–44</td>
<td>4.1%</td>
<td>2.6%</td>
<td>2.5%</td>
<td>3.0%</td>
</tr>
<tr>
<td>45–54</td>
<td>0.9%</td>
<td>1.2%</td>
<td>0.8%</td>
<td>0.5%</td>
</tr>
<tr>
<td>55+</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total N</td>
<td>3,452</td>
<td>2,865</td>
<td>3,601</td>
<td>4,371</td>
</tr>
</tbody>
</table>

Source: OPAIR

Student Populations and Increased Educational Provision
Countries of Origin

When considering the influences on university entrants, it is useful to note that the vast majority are Jamaican. The data reveal that nine of every 10 of the students come from Jamaica, and that fewer students from other contributing Caribbean countries are coming to UWI Mona for their tertiary education than previously.

Table 4: Total student population by origin

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamaica</td>
<td>13,772</td>
<td>89.0</td>
<td>13,834</td>
<td>89.9</td>
<td>14,429</td>
<td>90.8</td>
<td>14,811</td>
<td>91.1</td>
</tr>
<tr>
<td>Other contributing countries</td>
<td>1,314</td>
<td>8.5</td>
<td>1,203</td>
<td>7.8</td>
<td>1,189</td>
<td>7.4</td>
<td>1,195</td>
<td>7.4</td>
</tr>
<tr>
<td>Guyana &amp; Turks and Caicos</td>
<td>38</td>
<td>0.2</td>
<td>40</td>
<td>0.3</td>
<td>41</td>
<td>0.3</td>
<td>39</td>
<td>0.2</td>
</tr>
<tr>
<td>Non-contributing countries</td>
<td>274</td>
<td>1.8</td>
<td>288</td>
<td>1.8</td>
<td>214</td>
<td>1.3</td>
<td>187</td>
<td>1.1</td>
</tr>
<tr>
<td>Not reported</td>
<td>83</td>
<td>0.5</td>
<td>27</td>
<td>0.2</td>
<td>24</td>
<td>0.2</td>
<td>33</td>
<td>0.2</td>
</tr>
<tr>
<td>Total</td>
<td>15,481</td>
<td>100</td>
<td>15,392</td>
<td>100</td>
<td>15,897</td>
<td>100</td>
<td>16,265</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: OPAIR

Educational Backgrounds

The educational background of the Jamaican entrants largely continues to be the traditional high schools. The top five schools from which students matriculated in 2012–13 were Immaculate Conception High School (165 females), followed by Ardenne High (139), St Andrew High (129 females), Campion College (119) and Wolmer’s Girls (117 females). The student body, then, is
largely comprised of a majority of young, female Jamaicans coming from the
traditional high schools, and who are registered as full-time students.

The Student While at UWI

Financing the Degree

We saw earlier that the majority of students are full-time. There are no data
available at this time on how many full-time students work. So how do students
finance their degree at the UW1 Mona campus? Data from OPAIR indicate
that 24.6 per cent of all undergraduate students received assistance from the
Students’ Loan Bureau (SLB) in 2011–2012, and that the percentage has been
increasing steadily over the years from 18.5 per cent in 2007–2008. The average
age of those who received loans in 2011–2012 was 20.8 years, and that has
remained remarkably constant over the years (OPAIR (7), p. 8).

In the 2010 survey of the student experience, in a question on sources of
funding where multiple responses were permitted, 38 per cent of undergradu-
ates reported having been financed by a student loan (OPAIR (4), p. 9). Parents,
with a full 48 per cent, are reported to be the greatest category supporting stu-
dents, at least in part. Other sources are self-financing (17 per cent), scholar-
ships (11 per cent), government sponsorship or free tuition (8 per cent) and com-
mercial loans (7 per cent).

Students’ Academic Performance and Throughput

The University has high retention rates of first year students. Of all students
completing their first year of study in 2008–2009 and 2009–2010, OPAIR
reports that 92 per cent and 89 per cent respectively returned to do their 2nd
year. Humanities & Education and Medical Sciences achieved 95 per cent
retention of 2008 entrants; 100 per cent of all 2009 entrants into Gender &
Development Students returned. These numbers are far higher than the US
average (77.1 per cent), higher even than their highest rate of 84 per cent
achieved in California (NCHEMS 2010).
As shown in Table 5, less than half (43.1 per cent) of students complete their degrees on time however. This percentage has been increasing over the years, but by a very small margin of less than 1 per cent, with greater throughput in Humanities & Education, Science & Technology and Social Sciences, and more significant reductions in the B.Sc. Medical Sciences programme. After five years, just under three-quarters (74 per cent) of the students are able to graduate.

Figure 5 shows the distribution of classes of degrees awarded, and indicates that in 2012, 40 per cent of non-professional degree students finished with a Lower 2nd Class degree. The grades which UWI Mona students earn are not as high as one would wish.

### Students’ Perceptions of the UWI

In 2010, OPAIR conducted a survey of students, entitled “Speak Your Mind 2010”. A representative sample of 21.3 per cent (or 2,129) of all undergraduates was asked 85 questions. Answers were on a scale of 1–5, with 5 indicating the

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**Table 5: Percentage of First Degree Entrants Graduating On-Time**

<table>
<thead>
<tr>
<th>Faculty/School</th>
<th>2005–06 Entrants</th>
<th>2006–07 Entrants</th>
<th>2007–08 Entrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities (B.A.) 3 yrs</td>
<td>39.5</td>
<td>43.4</td>
<td>41.1</td>
</tr>
<tr>
<td>Education (B.Ed.) 2–3 yrs</td>
<td>87.8</td>
<td>84.8</td>
<td>87.9</td>
</tr>
<tr>
<td>Medical Sciences (B.Sc.) 3 yrs</td>
<td>79.0</td>
<td>77.1</td>
<td>71.9</td>
</tr>
<tr>
<td>Medical Sciences (MBBS) 5 yrs</td>
<td>62.4</td>
<td>73.8</td>
<td>82.5</td>
</tr>
<tr>
<td>Science &amp; Technology (B.Sc.) 3–4 yrs</td>
<td>31.0</td>
<td>34.3</td>
<td>32.8</td>
</tr>
<tr>
<td>Social Sciences (B.Sc.) 3 yrs</td>
<td>43.8</td>
<td>38.1</td>
<td>44.4</td>
</tr>
<tr>
<td>Average All Programmes</td>
<td>42.6</td>
<td>42.9</td>
<td>43.1</td>
</tr>
</tbody>
</table>

*Source: OPAIR*
level of highest satisfaction. The areas included in the satisfaction survey were wide-ranging, and included student administrative services, academic and non-academic support services, physical and social services, the degree programme and the overall experience. Overall scores ranged from 2.37 to 4.12; 65.9 percent of all answers averaged between 3.01 and 3.99. For 84 percent of the first year students surveyed, The UWI had been the first choice in tertiary institutions, preferred because of the reputation of the institution and because of convenience.

Students were most impressed with The UWI as the facilitator of their independence (4.12). Other high-scoring areas were the clarity of learning objectives (4.02 Year One, and 4.0 Year Two), the knowledge of lecturers (4.01), the development of their critical thinking skills (3.95), the bookshop (3.81), the course management system (3.80). Areas of least satisfaction included the availability of off-campus housing (2.37), academic advising (2.63) and the provision of wireless connections on campus (2.62).

In terms of students’ overall satisfaction, it is noted that this has fallen over the years in all areas but workload manageability, as shown in table 6.
The major trends identified by the findings have clear implications for HE in general and best practices in HE teaching and learning in particular.

Widening participation in HE has been central to the educational policies of many governments worldwide (Osbourne, 2003) including Caribbean ones which, since the late 1990s, have sought to increase the level of HE participation. This has resulted in universities and colleges seeking to create opportunities for the widening of access. At the UWI, widening access has meant an immense increase in the student population on all campuses in this period. Over the last 25 years, HE enrolment has swelled in Jamaica, especially in the traditional student age range (18–24). As has been noted, this trend has been evident at the UWI Mona for the years 2009/10 to 2012/2013.

Anderson and Devonish (2004) have called attention to the changing enrolment patterns of Jamaican undergraduate students at the UWI Mona. The

Table 6: Students’ Overall Satisfaction

<table>
<thead>
<tr>
<th>Area of Satisfaction</th>
<th>Y1</th>
<th>Y3 %</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload manageability</td>
<td>3.29</td>
<td>3.40</td>
<td>11%</td>
</tr>
<tr>
<td>Strong learning community</td>
<td>3.69</td>
<td>2.84</td>
<td>23%</td>
</tr>
<tr>
<td>Quality of the programme</td>
<td>3.72</td>
<td>2.63</td>
<td>29%</td>
</tr>
<tr>
<td>Quality of teaching</td>
<td>3.64</td>
<td>2.40</td>
<td>34%</td>
</tr>
<tr>
<td>No regrets in choosing UWI</td>
<td>3.60</td>
<td>3.25</td>
<td>10%</td>
</tr>
<tr>
<td>Learning support</td>
<td>3.53</td>
<td>2.58</td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: OPAIR

Engaging the Issues: Implications and Recommendations

Implications of Increased Enrolment and the Widening of Access

The major trends identified by the findings have clear implications for HE in general and best practices in HE teaching and learning in particular.

Widening participation in HE has been central to the educational policies of many governments worldwide (Osbourne, 2003) including Caribbean ones which, since the late 1990s, have sought to increase the level of HE participation. This has resulted in universities and colleges seeking to create opportunities for the widening of access. At the UWI, widening access has meant an immense increase in the student population on all campuses in this period. Over the last 25 years, HE enrolment has swelled in Jamaica, especially in the traditional student age range (18–24). As has been noted, this trend has been evident at the UWI Mona for the years 2009/10 to 2012/2013.

Anderson and Devonish (2004) have called attention to the changing enrolment patterns of Jamaican undergraduate students at the UWI Mona. The
numbers have increased in very significant ways and there is a clear shift in the gender balance. Furthermore, they have noted an increase in the number of students who are gaining admission to undergraduate programmes from communities that were traditionally considered working class enclaves, lower middle income areas and rural communities. With this increased intake of students and the concomitant variability in their abilities and levels of HE preparedness, there has been concern about the institution’s role in preparing them to make decisions about their course of study and progress through the institution. These changes in enrolment patterns have implications for the University’s response to these students, particularly in the areas of best practices in teaching and learning, programming, housing accommodation, and student services and development, especially with respect to counselling and psychological support.

The increase in the undergraduate population holds three particular implications for best practices that are of immense importance in the short term: (i) the need for a more robust academic advising programme; (ii) the need for student orientation to university teaching and learning; (iii) the need for additional changes in pedagogical arrangements, notably the introduction of learning communities. Indeed, research carried out over the last few decades into teaching and learning in HE has led educators to characterize practices that fulfil these needs as “best practices.”

Academic Advising

Academic advising is concerned with the provision of assistance to students to develop meaningful education plans to navigate the HE terrain of the university. This kind of academic support helps students in defining and refining their academic plans. In this regard, academic advising provides an environment that helps the student to make informed decisions about his/her own academic progress in collaboration with a mentor. This mentor supports the student with the correct information about the University’s regulations, advises about the path to the completion of the course and the programme, and is available to the student for consultation, especially in resolving academic problems. Successful academic advising enables the student to determine career and discover self along the way (Habley, 1995).
With increased diversity in the student body and with anecdotal evidence suggesting that some students are not as well prepared academically for university as was the case previously, best practices call for the provision of additional learner support for students (especially academically struggling ones) to ensure their success. Currently, some academic advising activities and learner support provisions are in place at UW I, Mona (for example, the Academic Support Unit). However, in order to respond to the needs of the student body, especially in light of the deliberate policies to widen access, a heightened academic advising programme is necessary. This is particularly important since there is recognition at the UW I Mona that academic advising has been deficient (Academic Advising at the UW I, Mona Campus, AB (M) 2009, 49). It has been observed that it is not uncommon for students to progress through a three-year programme of undergraduate studies without any declaration of a major and, in fact, that some students move aimlessly through their undergraduate studies without any sense of professional or academic direction. A robust academic advising programme is therefore necessary to ensure that support is provided to students to determine their majors and to register for the appropriate courses. This will no doubt also help to improve the throughput rate, and in particular to increase the numbers completing on a timely basis, shown earlier to be only 43.1 per cent.

Orientation to Learning and Teaching in HE

It has already been observed that with increased HE participation, many students arrive at the university ill-prepared to maximize their learning potential. Many students find their first year of university to be particularly difficult, in fact overwhelming. In many cases, this sets the stage for a university experience that is less than stellar, in which high achievement is sacrificed for merely getting through the degree. Hence, best practices call for student support structures, including the proper orientation to learning in a university context, and the necessary checks and balances to help students to make sense of the experience and reflect on the developmental nature of the journey. An orientation to university learning and teaching is therefore proposed. This will offer students
resources to help them negotiate and navigate the HE landscape, especially in relation to learning and student development.

In the Strategic Plan of 2012–2017, there is a concern with developing the distinctive UWI graduate, a graduate who will have specified attributes:

The key attributes of the UWI graduate refer to those academic abilities, skills, personal and professional qualities that should be acquired by students during their sojourn at the UWI. A distinctive UWI graduate should demonstrate that he/she is: a critical and creative thinker; an effective communicator with good interpersonal skills; IT-skilled and information literate; innovative and entrepreneurial; globally aware and well grounded in his/her regional identity; social, culturally and environmentally responsible; and guided by strong ethical values. (UWI Strategic Plan 2012–2017, 3).

One of the approaches recommended in developing this distinctive graduate is to “enhance learning effectiveness by providing students with a more diverse, flexible and multidisciplinary teaching/learning experience” (UWI Strategic Plan 2012–2017, 33). This concern must be facilitated through best practices in teaching/learning activities that require students to be participatory. Accordingly, an orientation to university learning and teaching would be important to help students understand the nature of their own learning and the various approaches that might be helpful in developing a learning plan.

Additional Pedagogical Improvements: Learning Communities

In pursuit of this distinctive UWI graduate, the time seems right for the UWI Mona campus to establish learning communities. The development of learning communities or pedagogical strategies that help students to engage meaningfully with the content being learned (Zhu and Baylen 2005) is also important in the context of providing improved opportunities to ensure student success. Conceptually, the learning community is built upon the notion of interdisciplinarity in relation to course content and collaboration of faculty across disciplines (Gabelnick, MacGregor, Matthews, and Leigh-Smith 1990). Learning communities are in fact small groupings of students who work together and are
supervised by faculty or other student services personnel. They offer participants a unique opportunity to engage in active learning, facilitate faculty-student interaction, and interaction among students. Within the learning community, multiple pedagogical arrangements can be explored. Students work with one another to explore content and deepen their understanding of the material. Matthews (1994) defined learning communities in this way:

Learning communities are not merely block programming, an administrative convenience that facilitates registration and use of rooms. Rather they are conscious intellectual structures that teachers create, and students participate in, to share a high quality and enduring educational experience…. There are many variations on the models of learning communities as there are institutions willing to participate. All, however, strive to provide an intense and supportive environment for intellectual growth and development. (p.16)

In these learning communities, emphasis has been placed on learning and helping others learn in a collaborative manner that is naturally linked to how people learn (Merriam and Cafarella 2007), resulting in a boost in students’ levels of achievement. This is certainly a major hallmark that the best practices research in HE teaching and learning is pointing to.

**Leveraging Diversity**

Over the last three years, as indicated, there has been an over 80 per cent enrolment in full-time programmes, suggesting that the on campus face-to-face programmes are the preferred ones. The data also indicate that the students are predominantly female. At the UWI Mona campus, the traditional learner population of students 18–24 years old in 2009–2013 was 62 per cent, 38 per cent being non-traditional. The trend is of a largely youthful, traditional university-age student body. The majority of these older undergraduates report being employed and as a result, they experience university with responsibilities above and beyond what they encounter in their classrooms.

In the Caribbean, international students have long been enrolling in institutions of HE but in very small numbers. There is a multiplicity of cultural manifestations that make up the Caribbean, and members from many cultural
groups are present on campuses throughout the region. Despite the predominance of females, traditional-aged students and large enrolment from the traditional high schools, it is to be noted that there is some element of diversity in the student body. This is due to increasing access by students of all social classes, ethnic origins and cultural enclaves.

There is much evidence that supports the perspective that colleges and universities around the world are experiencing increasing diversity in terms of the student population. This is particularly true for institutions of HE in the USA, Canada, Western Europe, and Australia (Taras and Rowney 2007). Diversity is a commitment to recognizing and appreciating the variety of characteristics that make individuals unique in an atmosphere that promotes and celebrates individual and collective achievement. Examples of these characteristics are age, cognitive style, culture, disability (mental, learning, physical), economic background, education, ethnicity, gender identity, geographic background, language(s) spoken, marital/partnered status, physical appearance, political affiliation, race, religious beliefs, personal philosophy of life, values and sexual orientation.

In the domain of teaching and learning, best practice research has shown that interactional diversity is important and can be leveraged to advance classroom learning (Gurin 1999). Gurin defines interactional diversity broadly as interactions with peers from diverse racial, ethnic, cultural, social, and economic backgrounds. It is clear that peers are an important factor in student adjustment to university life, and that peer interaction has both direct and indirect effects on how much students learn (Astin 1993; Kuh, Hu, and Vesper 2000).

**Responding to Gender Differences**

In the 1960s and 1970s, the enrolment patterns in universities and colleges in Jamaica (particularly the UWI) were totally different from the picture painted earlier. At the UWI Mona campus, there were more males than females in several faculties. Today, as evidenced, all the faculties of the UWI Mona campus reflect enrolment figures showing more females than males. The other campuses report similar disparities in terms of gender participation. Is there any way to
increase male participation without penalizing and rolling back the vital gains women have made in participating in postsecondary education? The UWI Mona Campus is aware of the gender imbalance and has introduced new programmes in the Sciences, Cultural Studies and Management Studies that are expected to be attractive to male students. However, the gains have been negligible so far.

Much of the research in Caribbean societies on gender in HE has focused on gender distribution in various faculties. This is related to pre-university academic qualifications and performance (Bailey 2002). There have also been some attempts to isolate other factors that impact performance, for instance finances (Jacobs 2002). In attempting to explain the reasons for male underperformance, particularly in the Jamaican high school system, Miller (1986, 1991, 1994) posited the notion of the historical marginalization of males in the school system. This became particularly problematic with the feminization of the teaching profession. Other scholars, notably Figueroa (1996, 2000) do not accept the argument of marginalization. He points to the historical privileging of Jamaican males in socialization practices, enabling them to have greater social space which leads to underperformance in education. Hence, he locates the problem in the gender socialization of Caribbean boys. This was particularly problematic at a time when male privileges had enormous implications for males in a work environment which was increasingly being defined by educational accomplishments. Further, male gender identity was oftentimes at odds with the school system and schooling was interpreted at times to be a female endeavour.

It is also known that girls complete their studies in the secondary schools with higher levels of qualifications, thus enabling more young girls to matriculate for university. In this regard, the argument from economics has also been used to explain the disparity in gender and achievement in HE in Jamaica. It is argued that men drop out of school and are not as interested in their academic pursuits because of their earning potential. Hence, the issue of the short supply of eligible males for HE is also seen by some as contributing to the lack of the presence of males in significant numbers in relation to their female counterparts (Reddock 2009).

It is clear that the issues that account for disparities in the male presence in HE in relation to the presence of females are complex. It is important that UWI
researchers continue to address this complex issue. In the meantime, there are some practical steps that can be taken to address some concerns that are generally agreed on. It is well known that boys prefer scientific and technical subjects. They learn more when active pedagogical approaches are used, when spatial-visual representations are pressed into educational service and generally in situations where experiential and kinesthetic learning opportunities are provided. Best practice demands that the university take action to help educators in secondary schools understand how boys learn and how they can be challenged to do substantial academic work. When teachers in secondary schools are empowered to introduce new approaches to teaching boys through education based on theories from gender science, there is a great possibility that the gender gap can be reduced. It is now well known that classrooms that are designed for the more verbal-emotive, sit-still-take-notes, multitasking and listen-with-great-care learner are generally more suited to girls. Male learners take some natural assets to the classroom that ought to be exploited to advance learning. These assets include impulsivity, single-task focus, spatial kinesthetic learning and physical aggression. Teachers should not view these as problematic but should be empowered to introduce teaching strategies to accommodate these male assets so that learning is advanced (King and Gurian 2006). At the university level, programmes should also be developed to respond to the educational interests of young men.

**Addressing Feeder School Disparity**

Based on the findings, many students continue to come from the traditional high schools (the so-called grammar schools). Some come from upgraded high schools. As we have seen, the more outstanding feeder schools over the last three years for the UWI, Mona Campus in terms of the number of matriculates are the elite secondary high schools in the corporate area: Campion College, Immaculate Conception High School and Ardenne High School and a few elite ones in rural Jamaica. One might reasonably call attention to the quality of students in these schools and of course the level of preparation that they have received for tertiary education. Further, the schools have large percentages of
middle class and upper class families. It would appear, then, that we must address the real issue of social advantage that might have been transmitted through the institutional and systemic agents that are named in social reproduction theory.

It is argued in social reproduction theory that social advantage is largely transmitted through institutional and systemic agents that maintain the status quo in such a way that one’s privileged position is preserved across generations (Grusky 2001). In societies in which socially-reproducing activities are clearly visible and dominant, the privileged position of one’s family is oftentimes understood to be the best predictor of an individual’s social status in the society as time progresses. In more open societies, one’s position is not fixed and certainly not static but it depends on individual competence and some luck too (Jencks et al. 1972). Blau and Duncan’s (1967) work is oftentimes thought to be groundbreaking research. Using empirical measures, their study showed that personal achievements in education were the best means by which the cycle of poverty and thus, the reproduction of social inequality, could be broken. In order to break the cycle of poverty and social inequality so well known in Jamaica, non-traditional high schools must be positioned to offer quality education that will give their students an equal opportunity of matriculating into university. They must also be positioned in such ways that their social environment will enable their students to have greater social advantage. The implications of the review of data from the feeder schools are that students from the newer schools are attending the UWI Mona Campus in fewer numbers than students from traditional high schools. The implications of this are clear: there need to be interventions to improve the schools so that there will be an equalizing of opportunity.

**Addressing Financial Need**

This paper has pointed to financial challenges faced by students at the UWI Mona. In a paper presented to the Academic Board in 2009, the authors indicated that these financial problems were an increasing concern (Responding to the changing psychological needs of the UWI students, AB (M) p.38). They
noted that oftentimes these concerns were not captured by the diagnostic system of the Counselling Service. However, the problem was characterized as grave since some were unable to find fees, funds for meals and accommodation on hall, and others, in an attempt to respond to their parlous financial situation, had actually taken full-time jobs and were carrying a full-time workload. In addition to carrying a full-time job, some students were engaged in full-time study and had family responsibilities. Invariably, the stress of the situation impacted their ability to cope with their academic studies and naturally had an impact on their emotional and physical well being. This is clearly antithetical to optimum learning.

**Conclusion**

In this paper, we have presented insights into dominant characteristics of students at UWI, Mona. They are predominantly female, falling in the traditional university age range of 24 and under; they are primarily Jamaicans from the traditional high schools with many facing financial challenges. These traits have been discussed and major implications noted. Best practices in teaching and learning in HE would indicate the need for the use of active and interactive teaching strategies, the development of learning communities and the need for a more robust focus on academic advising. Further, we have recommended that the University take additional action with regard to the disparity in the gender composition of the student body. It is our belief that armed with a better knowledge of whom it is we teach, teaching and learning at the University will be enhanced.

**References**


**Title:** Widening Participation in Higher Education


Office of Planning and Institutional Research (OPAIR), UWI Mona, (1) — ‘Academic Profile of Students, 2009–10 to 2011–12’


——. (3) — ‘Academic Profile of Students 2008–09 to 2011–12’


The University of the West Indies, Mona Campus. 2009. Academic Advising at the UWI, Mona Campus, AB (M) p. 49. Unpublished paper: Kingston, Jamaica: The University of the West Indies.


Abstract

This discussion uses the report Education and crime: Evidence from prison inmates in Jamaica ("The Prison Study") as an entrée into an examination of social equity in education, which negatively affects student outcomes, in Jamaica. Using secondary research, it bridges the gaps in the report to flesh out the role of learner characteristics and school practice in student underachievement at secondary level to show that focus on the school is not sufficient. Using the findings of other reports such as the CaPRI Report card on education, this discussion, nevertheless, finds corroboration for the profile of the ‘typical’ prison inmate – a Jamaican-born male, less than 34 years old, from a single-parent home in either Kingston and St. Andrew or St Catherine. It concludes by presenting recommendations for improving secondary level learning outcomes in Jamaica.

Introduction

The school does not act as a countervailing and liberating force in altering societal stereotypes. These stereotypes restrict students’ and teachers’ thinking and narrow the vision of what is educationally and socially possible for boys and girls. (Evans 1999, 79)
The education system, by its deliberate design in Jamaica has perpetuated a social and economic structure which excludes the poor and their children, relegating them to low status menial occupations, low wages and sub-standard living conditions. The poor quality of schools to which those living in poverty have access, has served to reproduce, over generations, the social inequities, which education itself is intended to counter. This in-built bias in the education system has far reaching implications for the ability of families to move out of conditions of marginalization. (Watson Williams 2008, n. p.)

Unless the matter of underperforming boys is addressed urgently, the education system will be a channel of inequality which disenfranchises young men. (CaPRI 2012, 18)

In early 2014, Jamaica’s Minister of Education brought to Parliament a 2012 report of a study undertaken by the Jamaica Constabulary Force (JCF) entitled *Education and crime: Evidence from prison inmates in Jamaica* (“The Prison Study”). One of the research questions the study attempted to answer was: Are the names of some [secondary] schools featured more frequently than others within the sample [of inmates in the study]? To that end, the report listed 18 schools that it found were most often associated with the prison inmates in the study. The Minister named these schools and this created a firestorm in both the schools identified and in the public domain. The Principal of XYS High School, which ranked second in the “top” five in the study, told the *Daily Gleaner* newspaper:

The students are most distraught and unhappy about the report of their school. For the past 10 years, as the principal, I have seen so much growth. I have seen how the community has respected the school, the hard work of our teachers, and the effort to mould them into respectable adults. We have become a school of choice within this community, and it is wrong to say that we are producing criminals. The school is a reflection of the society, and every day when the society comes into our schools, we have to be correcting the society and some of the children. *Are you trying to say the school is at fault?* [Emphasis added] (Boyd 2014).

The case of this school was particularly poignant as the 2013 Rhodes Scholar was one of its graduates. This was not the first time that a Jamaica Minister of
Education had caused an uproar with regard to school performance. In 2011, the then Minister of Education also created significant offence by calling four schools ‘failing’ and directly intervening in their operations (Hunter 2011). Indeed, in comparison to other schools, such ‘failing’ schools are often more under-resourced, considered less desirable by students and parents (Jennings 2014), and attended by the children of the working poor. The prevalence of graduates or former students of non-traditional high schools among the incarcerated in the *Education and Crime Report (ECR)* may point to an intersection between social disadvantage arising from poverty and social inequity of achievement. Social inequity deals with the inequity of opportunity available to students of certain groups to perform well by attaining the benefits of education (Gillborn and Youdell 1999). In 2011, as in 2014, in the midst of that public outcry and distress, the question of social equity in education, which negatively affects student outcomes, may have been muted.

**Aim of the Discussion**

In order to address the problem of social inequity in education and develop appropriate interventions, it is necessary to understand the nature and extent of the problem. This paper begins an exploration of the nature of social inequity in secondary education in Jamaica by using the ECR as an entrée into the discussion. It interrogates the profile of the typical inmate presented in the report in light of salient factors related to achievement in Jamaica as identified in the literature (Evans 1999; Carlson 2002; Clarke 2004–2005; Watson Williams 2011; CaPRI 2012). In so doing, it uses the Evans study, supported by other research such as the CaPRI 2012 *Report card on education in Jamaica*, to provide an explanatory construct for this typical inmate that highlights the role of the school (educational processes) as well as learner characteristics in student achievement – “the school [alone] is not at fault”.

Evans’s investigation of gender and differences in achievement in secondary education, which is the foundational research for the others listed, provides some support for the profile of the typical inmate presented in the *ECR*, and points to the need for actions to reduce low quality educational opportunities.
The discussion begins with an examination of some of the issues raised by the shortcomings identified in the ECR. Using the best practices in research methodology identified by Caribbean researchers Leacock, Warrican, and Rose (2009), the discussion critiques the ECR, and presents ways in which shortcomings in such areas as research design can be addressed; it then shows how these gaps, when addressed, further develop the picture of social inequality in education in Jamaica. This is followed by an examination of the socioeconomic and educational characteristics of the typical inmate in light of the 2010 Jamaica survey of living conditions. This examination answers the question: How can the typical inmate be explained by the data available on the socioeconomic conditions of Jamaican life?

Defining Quality and Achievement in Education

A central global concern in education is how to increase equality of learning outcomes, access, and retention (UNICEF 2005). The UK Secretary of State for Education, in a recent White Paper on Teaching, captured the sense of schooling as a means of increasing social equity, when he declared, in a passage worth quoting in full:

Our schools should be engines of social mobility, helping children to overcome the accidents of birth and background to achieve much more than they may ever have imagined. But, at the moment, our school system does not close gaps, it widens them. Children from poorer homes start behind their wealthier contemporaries when they arrive at school and during their educational journey they fall further and further back. The achievement gap between rich and poor widens at the beginning of primary school, gets worse by GCSE and is a yawning gulf by the time (far too few) sit A levels and apply to university. (Gove 2010, 6–7)

The focus on improving equity of outcomes reflects a belief that all students, regardless of socioeconomic background, can achieve certain basic outcomes, given the right learning environment. So, when students fail to develop the requisite skills and expected outcomes this can be seen to be partially due to a deficiency in educational quality in the school. Educational outcomes are often used to rate the quality of educational institutions, that is, the extent to which
their graduates are meeting absolute criteria such as achievement in external examinations. In the case of Jamaica, for example, achievement at secondary level is measured by success in external CSEC examinations (Carlson 2002) with the expectation of students gaining at least five subjects, including mathematics and English. Indeed, achievement in these subjects opens up opportunities for entering the labour market as well as continuing to tertiary education.

There are, however, a number of variables that can affect educational outcomes, so a straightforward relationship between the conditions of education and its products is not easy to determine. Learner characteristics (capacities and experience) such as socioeconomic background, health, place of residence, and the amount and nature of prior learning all influence learning (UNICEF 2005). These characteristics have the potential to impact inequality of achievement among learners and must be recognized and responded to specifically so that outcomes can be improved.

Different researchers give prominence to the role of different factors in educational achievement. Indeed, Carlson (2002), based on her work in Jamaica, argues that the most important factor in student achievement is not the level of resources in school, but rather how students use the resources provided. At the same time, Carlson finds that students’ ability to use school resources is more directly related to their social, cultural, and economic status than any school variable. “Less advantaged students do not tend to use school resources as regularly as students of higher socioeconomic status do” (Carlson 2002, 4). The lesser use of school resources by less advantaged students is linked to lower levels of attendance and higher dropout rates. This does not, of course, rule out the importance of adequate resources in school.

Watson Williams (2011), on the other hand, identifies parenting as one of the most critical factors in adolescent outcomes in education; the power dynamics at play in the school setting in the Jamaican context influence the parenting practice of poor families in particular and shape the nature of their participation in their children’s education. Watson Williams finds that poorer parents face both internal and external barriers to participating in the education of their children, therefore leading to lower outcomes.

Evans (1999) identifies three factors as critical to achievement that encompass both learner characteristics and educational quality — access, opportunity
to learn, and decision to participate in learning. In so doing, she too moves the focus away from inputs in the education system (teacher qualifications, numbers of schools and places, etc.) to the processes of schooling (the quality of school life, nature of teacher-student interactions, the quality of teaching and learning). Evans focused on achievement between male and female students and found that girls generally outperformed boys and are proceeding to tertiary education at a higher rate. School practices such as being beaten or insulted, or the practice of streaming demean students, especially boys. Student academic identity, particularly of boys, showed that boys did not have an image of themselves as interested in academic work, and therefore were more likely to be less engaged in the classroom. These and other school-related practices were found to be robust in offering explanations for boys’ underachievement. At the same time, social practices such as differential socialization of boys and girls, for example, the need for boys to be involved in work activities, also impact negatively on achievement although these were not examined as variables in the study.

The Prison and Education Study

The JCF’s Research, Planning and Legal Services Branch (RPLSB) prepared the brief 16-page *Education and Crime Report* in March 2012. The title, “Education and Crime: Evidence from Prison Inmates in Jamaica,” purports that the study provides evidence on the link between crime and education in light of data obtained from prison inmates. The stated purpose of the quantitative study is “to examine the educational background of prison inmates currently serving time in the adult correctional institutions in Jamaica and to describe the characteristic features of the typical inmate amongst the prison population” (p. 5). The four research questions addressed by the study were:

1. What is the personal profile of the ‘typical’ inmate amongst the prison population in Jamaica?
2. What are the criminal and educational profiles of the ‘typical’ inmate amongst the prison population in Jamaica?
3. Are the names of some schools featured more frequently than others within the sample?
4. Are some types of school featured more frequently than others within the sample?

The sample population was 894 inmates from the six adult correctional institutions in Jamaica – 851 males and 43 females. [The Correctional Services website lists seven adult institutions, however.] The report claimed that the sample was representative, based on institution and gender. The sample was selected randomly based on a list of inmates compiled by the Department of Correctional Services and the survey was conducted over a seven week period in 2011–12: “From that list [compiled by the Department of Corrections] a representative sample of the total prison population based on the institution and gender was chosen using random sampling” (p. 6). Inmates selected gave verbal consent to the trained police personnel from the RPLSB, who conducted the interviews, each of which lasted an average of five minutes, according to the Report. The researchers claimed, however, that the findings were limited by the self-reporting format. In addition, the researchers were unable to access the files of inmates to verify the information supplied by inmates: “This means that the accuracy of the information, to a large extent is dependent on how well the interviewees recollected the relevant facts” (p. 6). The Report, nonetheless, claimed that the sample produced a margin of error of +/-3 at the 95 per cent confidence level without detailing how this was the case. The data was obtained using a structured 16-item survey instrument that was first piloted among the members of the JCF unit undertaking the study.

Findings of the Prison Study

The study claimed that, based on the sample size, it is possible to describe the typical inmate. The personal profile of this inmate is a Jamaican-born male, who is under 34 years old and hails from either Kingston and St Andrew or St Catherine, parishes noted as among the ones “that account for most of the crime and violence in the country” (p. 7). The typical inmate was brought up in “a single-parent home” (which in Jamaica usually means single mother). He has an educational profile that shows that he has had some access to education via a non-traditional high school. He is likely to have dropped out before reach-
ing Grade 11 without any CSEC subjects, however. The typical reason for him dropping out was financial difficulties. His criminal profile is such that he would have had his first arrest before 24, for some form of breach of the Firearms Act.

At the same time, “The study also uncovered evidence which shows that within the different types of school, the names of some schools featured far more frequently than others” (p. 14). Among the top 18 schools featured in the study, frequency of association with inmates ranged from 8–20. Upgraded high schools accounted for 14 (77.7 per cent); only one traditional high school featured in the top 18; one technical high school, one all-age and two primary schools rounded out the list. The disproportionately large number of non-traditional high schools represented in the sample is identified as having significant implications for targeted programmes and interventions in the schools. The authors conclude by recommending further research on socioeconomic variables such as employment, marital status, and reasons for involvement in crime. Twelve specific recommendations, covering such areas as improved resourcing for early childhood education and non-traditional high schools, parenting, and a restructured Safe School’s Programme are detailed; these, however, have little bearing on the findings of the study.

A Closer Look at the Education and Crime Report

On closer examination, the ECR can be seen to exhibit a number of weaknesses, which if addressed, can help to address the negative response to the Report and more clearly indicate social inequality in Jamaica and the Jamaican education system specifically.

Vague and unsubstantiated claims are present throughout the ECR; for example, “At the same time, we have seen where more and more youths are turning to a life of crime and criminality. And so it is widely felt that a significant contributing factor to the high involvement of youths in criminal activities in Jamaica is the worrying state of the country’s education system” (p. 5). No data is presented to back up the assertion of increased youth involvement in crime or that the state of Jamaica’s educational system can be considered to be “wor-
rying”. Even more important, that this worrying state of schools is a contributing factor to youth crime is not established either.

Taking account of research in the field on the state of education in Jamaica, as well as on youth involvement in crime in Jamaica, would help to bridge this gap. Carlson (2002), in her social assessment of the Reform of Secondary Education (ROSE) Programme, sheds light on the matter of youth and crime. She noted that over half of all major crimes in Jamaica are committed by youth (mostly male), and that 30 per cent of inmates sentenced to adult correctional facilities are between the ages of 17 and 25. This appears to bear out the ECR findings concerning the age and gender of the typical inmate. Similarly, the more recent 2012 UNDP Caribbean Human Development Report (CHDR), the first of its kind, identifies youth crime in the region as increasing and costly for the region. The UNDP Report uses the standard definition for youth as persons between the ages of 15 and 24. With the exception of Barbados and Suriname, the CHDR identifies increases in homicide as a trend in the region over the last 12 years; this is significant as homicide rates are said to be falling substantially in other parts of the world. Jamaica is noted to have the highest number of incarcerated youth in the region. Among the various interrelated risks and vulnerabilities that may increase the likelihood of youth involvement in violence, the Caribbean Human Development Report listed unemployment, disconnection from or poor attitudes towards school, and low educational attainment (which in the findings of the ECR can be seen to be leaving school without subjects or not finishing school at all). Poor attitudes to school and the link with low achievement are also borne out by the Evans study.

**Worrying State of Education**

To illustrate the worrying state of education in Jamaica, it is possible to draw on the reports of the National Education Inspectorate (NEI) and the CaPRI report card on education (2012). (More information on the NEI reports is given below). The CaPRI report card is a unique accountability tool that tracks changes in student learning (usually by performance in standardized tests) along with changes in educational inputs such as teacher qualifications and enrolment
in order to better understand how structures affect education in the country. It offers the best information available on key aspects of education – access, quality and equity – which are considered important for improving learning. CaPRI reports that the problem in Jamaica’s education sector is not solely about money. Indeed, between 2005 and 2010, Jamaica invested increasing amounts in education – moving from 5.3 to 6.1 per cent of GDP. Such levels of investment are higher than the average for developed countries. In terms of enrolment, most Jamaican children attend school up to the lower secondary level (Grades 7–9); moreover, there is a robust assessment system incorporating both national and school-based forms of assessment. However, the test scores at all levels of the educational system point to gaps in learning outcomes for many students, especially children of the poor. Up to 90 per cent of the poorest Jamaicans lack secondary or post-secondary certification compared with 56 per cent of the wealthiest. Varying resources among schools continue to be a problem. Better performing schools with resources such as computer labs and wi-fi coexist with schools having the barest minimum number of computers in a context of severe overcrowding (see also Carlson 2002).

In the nine critical areas on which education in Jamaica is judged, the CaPRI report card gives three Bs (expenditure, assessment system, enrolment), four Cs (staying in school, standards, management and accountability, teaching profession) and two Ds (equity, test score). All critical areas are judged to be improving, except for staying in school and assessment system, which are judged as having no observable change. Equity is the sole area in which the report card judges Jamaica as declining. This judgment is based on the lack of a discernible path to address the underachievement of boys and the wide disparities in educational outcomes for different socioeconomic groups. Although the report card does not provide an average for Jamaica’s performance in education, it is possible to see that the nine variables average out to a C grade, which means that the system is average with more indicators heading in an upward direction. But perhaps if the equity question is weighted more heavily than the other areas, then it is possible to see that as a worrying trend, especially when it is correlated to a profile of an inmate that is a male from straitened socioeconomic circumstances.
Further, the *ECR* is weakly grounded in the literature in the field and lacks a developed theoretical framework to help make sense of the data acquired. There is a wealth of research on the education and crime question, yet only one source is listed in the bibliography and used only once in the entire study – Lochner and Moretti (2001). It appears that this study, which is mentioned in the opening lines of the *ECR*, may also have been the basis for the title of the JCF Report. The Lochner and Moretti study was actually published in 2003 (not 2001 as noted in the Prison and Education Study) and is entitled, “The effects of education on crime: Evidence from prison inmates, arrests and self-reports”. (The JCF Report’s title is “Education and crime: Evidence from prison inmates in Jamaica”).

A reading of the Lochner and Moretti study raises questions about the relevance of the information from that study to the Jamaican situation. Lochner and Moretti are interested in the external benefits of education, such as its effect on crime, in the USA. Unlike the JCF study methodology, these researchers employed multiple data sources and focused only on men, distinguishing, at times, between Black and White inmates; the sources employed by Lochner and Moretti were “individual-level data from the [United States] Census on incarceration, state-level data on arrests from the Uniform Crime Reports, and self-report data on crime and incarceration from the National Longitudinal Survey of Youth” (27). Lochner and Moretti (2003) report that “All three of these data sources produce similar conclusions: schooling significantly reduces criminal activity” (27). Lochner and Moretti’s emphasis on the social impact question is clear:

> We further argue that the impact of education on crime implies that there are benefits to education not taken into account by individuals themselves, so the social return to schooling is larger than the private return. The estimated social externalities from reduced crime are sizeable. A 1% increase in the high school completion rate of all men ages 20–60 would save the United States as much as $1.4 billion per year in reduced costs from crime incurred by victims and society at large. Such externalities from education amount to $1,170–2,100 per additional high school graduate or 14–26% of the private return to schooling. It is difficult
to imagine a better reason to develop policies that prevent high school drop out. (p. 27)

The JCF study does not attain this level of sophistication or rigour. No attempt was made at triangulating and cross-referencing data, and it is certainly not enough to note the lack of verification of the information provided as a limitation.

Among the various research approaches to be used in social settings as identified by Leacock, Warrican, and Rose (2009) is a correlational study, which seeks to investigate relationships between variables without making claims of cause and effect (p. 56). Such correlational studies are useful for pointing to areas of further research and take the researcher one step closer to establishing cause-effect relationships. If the nature of the kind of study being undertaken by the RPLSB had been clearer, this might have prevented much of the misunderstanding that resulted.

**Sample Selection and Survey Administration**

There is no basis for arguing for the representative nature of the study as the overall Jamaican prison population (N=x) is never established. The process of arriving at the sample size (n) is not clear either, especially as a percentage of the prison population. The description of a random sampling method is not borne out, as no indication is given of the preparation of a random number table or sampling frame and the process of undertaking the random selection. It could be inferred that some kind of stratified sampling was undertaken, since the random sampling is described as being representative of institution and gender, and the percentage for each facility is provided.

The description of the data collection method is also unclear. At one point, the *ECR* indicates that data collection method was “self reporting”; at other points, however, it speaks of “interviews”. But, as Appendix A demonstrates, the instrument was a 16-item questionnaire, which means the research approach was quantitative; therefore, interviewing was not a method used, in spite of the respondents being constantly referred to as interviewees (*see also* p. 6 of the Report where interviews were said to have been “administered”). The question-
naire was administered by the police personnel to the inmates rather than having the respondents fill the questionnaire out themselves. No justification was given for this approach. Yet, self-completed questionnaires that are done anonymously are good data collection tools. Research participants are believed to be more truthful if they cannot be identified.

The Pilot Questionnaire and Protection of Subjects

The piloting of the questionnaire among the officers, who were later tasked with administering the questionnaire, raises ethical questions. Piloting means identifying a sample of respondents, who are similar to the ones included in the survey, but will not be involved in the research, and then administering the instrument to them (Leacock, Warrican, and Rose 2009). Therefore, members of the prison population, and not the police force should have been involved in the pilot. At the same time, prisoners may be considered among the vulnerable groups that researchers have to deal with; the power and control that law enforcement officers have over that population should be taken account of and planned for. It might have been difficult for inmates to refuse to participate, and the presence of police personnel may have led to responses that were believed to have been expected. Self-completed questionnaires may have served as a means of protecting the inmate respondents as well as providing better information. Undertaking a proper piloting of the questionnaire might have contributed to improving the instrument to ensure that it was both valid and reliable. Taking account of the ethical issues involved in both surveying a prison population and reporting data so as to protect other vulnerable populations like students would have enhanced the ECR. Yet no ethical considerations were discussed.

The relevance of identifying particular schools rather than school types remains unclear (Research question 3). The distress caused by the naming of particular schools was predictable and could certainly have been avoided as the study was not able to nor intended to link schools and crime. The question of harm to participants in this study may have resulted from the way the findings were reported (Leacock, Warrican, and Rose 2009). The students and teachers
of the schools named were exposed to emotional and reputational harm. Perhaps a better and carefully articulated research design would have eliminated that problem. At the same time, although the study investigated institutions, the reporting of the findings had a negative impact on another vulnerable population, students. More care should have been taken in this regard also.

**The Schools**

Jamaican secondary schools fall into two main categories: (1) those with three years to completion (grades 7–9 of all-age schools and primary & junior-high schools); and (2) those with five years to completion (grades 7–11 of traditional and upgraded secondary, technical and vocational/agricultural high schools). Among the top 18 schools listed in the ECR were one rural all-age and two inner city Kingston primary schools, one rural technical high school, one Kingston-based traditional high school; the rest were upgraded secondary schools; three of the upgraded high schools were from the rural area. Four of the schools featured most frequently in the top 18 were Kingston-based upgraded high schools.

Only one of the top 18 schools listed in the ECR was among the schools featured in the 2013 NEI Report – PQY High School (formerly PQY Secondary School); in fact, that non-traditional inner city co-educational high school is listed among those schools that the NEI judged as “unsatisfactory,” that is, in need of immediate assistance. (It is of note that this school has now been assigned a principal of the highest calibre). This new secondary high school was also one of the four schools called “failing” in 2011 by a former Minister of Education, based on an index of performance using such variables as public perception and performance in the CSEC examinations over a ten-year period (Hunter 2011). In defending his definition and actions, the then Minister stated:

> We know that such an index will no doubt spark national debate. It will raise issues of equity, of lack of resources, but it will also raise issues of leadership, of deep-seated cultural attitudes to education that Jamaica must confront if we are going to be truly a developed country by 2030. (Hunter 2013, n. p.)
The former Minister’s comments highlight the issue of social inequity in resourcing schools so as to bring about desired outcomes. The Minister also noted the impact of school practices such as leadership acting in concert with “deep-seated cultural attitudes to education” – clearly similar to those identified by Evans (1999). Three other schools from the top 18 featured in the previous NEI Report (2011) – two upgraded high schools (ABC High and DEF High) and one traditional high school (GHI High School). In that Report, GHI, the Kingston-based all-boys traditional high school, was rated as good and its leadership and management rated as exceptionally high; teaching was satisfactory and supportive of student learning. This is one of the schools with a strong alumni body, which “contributes resources in cash and kind to both capital investments and recurrent expenditures. These have never been quantified, but are substantial” (Miller and Munroe 2014, 240). Yet, this school was associated with eight inmates in the study – a similar frequency to five non-traditional high schools, the two primary schools and the technical high school that were also in the top 18. So, in that instance, the quality of the school belies the assumed correspondence between low quality resources and poor school practices and underperformance. Clearly, it cannot be the school alone that is at fault. No explanation is presented for this anomaly in the ECR, however. One Kingston and St Andrew-based upgraded high school (ABC) was rated overall satisfactory and the other, another co-educational St Andrew-based upgraded school (DEF), unsatisfactory. The 2011 NEI Report noted that in schools considered unsatisfactory, lessons were often dull and did not cater to students’ differing learning styles and abilities. Teacher understanding of how students learn, as well as progress in mathematics and English, was below the national average in such schools. Again, the question of school practices and the impact on performance is clear.

The concerns with school performance have been a long-standing issue. While the ECR did not attempt to draw a causal link between education and crime (indeed such a link could not be made or proven), as was detailed in the Introduction, many persons did. Given all the concerns with the research itself, it is difficult to say how reliable or representative the findings and conclusions are. The most useful part of the study was the attempt at creating a profile of the typical inmate, about whom there has always been some speculation.
Furthermore, the recommendations appear to have little direct bearing on the findings of the study; they almost appear to have been culled from other sources and put into this study. For example, how is the recommendation to discontinue the policy of automatic promotion of students to secondary school, irrespective of academic performance, a recommendation arising from this study when the existence of such a policy and its impact on the prison inmates was not studied? Other recommendations, such as increasing the quality and access to remedial education to inmates, again appear to be disconnected from a study dealing with “education and crime”.

The Typical Inmate as an Indicator of Social Inequity

The ECR, though weak in several respects, produced a profile of the ‘typical’ inmate, who was a Jamaican-born male, less than 34 years old, from a single-parent home in either Kingston and St. Andrew or St Catherine. Educationally, this inmate has had some association with secondary education via an upgraded secondary school from which he probably departed prematurely without any subjects. The profile of the typical inmate can be seen to be at the intersection of several kinds of socioeconomic disadvantage, which culminated in risky behaviour that led to crime and repeat incarceration (more than 60 per cent of the sample had been incarcerated at least twice). As the 2010 Survey of Living Conditions in Jamaica reveals, the socioeconomic disadvantages begin early, in the early childhood cohort (0–8 years), which represents a critical developmental period. Birth (biological) mothers were present in the household for the majority of children, but birth fathers were largely absent. While overall readiness scores for both the cognitive and socioemotional domains were high, poor children were worse off in both areas than wealthier ones.

Single-Parent Homes

The single-parent home that the typical inmate is from is more than likely to be female-headed. As the 2009 Survey of living conditions in Jamaica reveals, 45.5 per cent of households are female-headed (by 2010, this had grown to
47.1 per cent). In 2010, female-headed households with children and no man resident accounted for 55.3 per cent of female-headed households. These female-headed households had more children, with a mean of 1.2 children, while male-headed households had a mean of 0.7 children. The largest households in terms of number of members, and the largest proportions of children were found in the poorest quintiles, in female-headed households and in the rural parts. Male-headed households had mean per capita consumption that was 17 per cent higher than that for female-headed households. Yet, while female-headed households had lower consumption levels than households headed by men, they recorded higher consumption in three commodity groups: fuel and household supplies, education, and personal care. This may be a result of female-headed households having more children and women spending more time pursuing education than men. With respect to poverty, female-headed households are among the most vulnerable groups.

A larger percentage of female-headed households applied for assistance through the Programme of Advancement through Health and Education (PATH) and more households in quintiles 1 and 2 applied than wealthier households. These quintiles accounted for 67.1 per cent of PATH beneficiaries. Females were 53.2 per cent of that number. Indeed, 14 per cent of female-headed households were poor compared with 11 per cent of male-headed households. A higher proportion of poor households were female-headed, a trend which has been evident in Jamaica over the last 10 years.

Enrolment and Persistence

Disparities in education are marked by differences in enrolment between three-year secondary schools (all-age schools) and five-year secondary schools (traditional and upgraded high schools). Enrolment in three-year schools showed higher proportions of males, students from poorer households and those from the rural area. Poorer students, especially males, start school at a disadvantage and are unable to catch up, as is demonstrated by their low achievement. Although enrolment in secondary education is roughly the same for both sexes, girls are more likely to have met the minimum requirement for enrolment in
tertiary education, that is, four CSEC subjects, including mathematics and English (CaPRI 2012). In 2010, only 37 per cent of the students with qualifications to matriculate to tertiary education were males. However, Clarke (2004) reminds us that the picture of underachievement is not a homogeneous one; while girls as a group are doing better than boys as a group, not all boys are underachieving and not all girls are doing better than all boys. In fact, middle-class boys are doing better than other boys and lower-class girls. Working-class girls are doing better than the working-class boys. So working-class boys are the group that is underachieving and, as is suggested by the ECR, ending up incarcerated.

According to the 2010 Survey of Living Conditions, primary and secondary level students were each sent to school an average of 19 of the 20 days covered (18.9 and 18.7, respectively). The Survey measures attendance based on a fixed reference period of 20 school days (April 26–May 21, 2010); this differs from the measurement used by the Ministry of Education (MOE), which is based on students’ attendance for the entire 190 days in the school year. The 2010 figure is an increase from 17 for both primary and secondary attendance in 2006. The average daily rate was 94.5 per cent at the primary level and 93.5 per cent at the secondary level. Rural area students continued to record rates below the national average at 68.5 per cent, and students from quintile 1, which represents the poorest 20 per cent of the Jamaican population, were also below with 59.6 per cent. The wealthiest segment of the society attended school 92.8 per cent of the time and females attended more regularly with 77.1 per cent compared to 75.1 per cent for males.

Money problems, illness, and rain remained the top three reasons for students not being sent to school. (The CaPRI Report Card also corroborated this.) Violence was the fourth most prevalent reason for non-attendance (8%) in 2010. Interestingly, unlike previous years, when ‘Money problems’ was the major constraint, in 2010, ‘Illness’ became the major constraining factor. Indeed, it was the most prevalent reason given by the wealthiest for not attending school. Nonetheless, financial constraints remained the top reason for non-attendance among the poorest quintiles at 41.0 per cent compared with 9.2 per cent for the wealthiest quintile (JSCL 2010). ‘Money problems’ was the main mitigating factor for students in rural areas but was less likely to be the constraint for stu-
dents in the KMA. With respect to the inmates in the ECR, the three main reasons reported for leaving school in particular grades were: (1) having completed school at that level (31.3 per cent), (2) financial difficulties (24.8 per cent), and, (3) just stopped attending/uncontrollable behaviour (14.7 per cent). The centrality of financial problems in leading inmates to drop out of school is understandable given the socioeconomic background of many of them.

Towards a Conclusion

The ECR (2012) was a rather weakly researched report that nevertheless pointed to concerns with inequity within secondary education in Jamaica. In the sample, it was shown that the mostly male inmates had had some association with a non-traditional high school but left without completing and hence no certification. Involvement in criminal activity is negatively correlated to more years of schooling and successful completion. The non-traditional or upgraded high schools that were prominently associated with the inmates in the ECR can be seen to be the poor siblings of the high school family in terms of resources, reputation, and student performance. These schools tend to receive the students from the poorest economic strata of Jamaica, who are already disadvantaged; at high or all-age schools, they in turn tend to have poor attendance and to drop out more often without the expected certification, especially in the core subjects of mathematics and English. Certainly, improving student outcomes will require the provision of direct resources to these schools, especially to non-traditional high schools. The latter require more resources but are given the same provision as better resourced schools with established alumni associations and status.

Similarly, policy and programmes to support universal access at secondary level will be necessary. To truly bring about universal access, issues of retention must be dealt with by improved and increased socioeconomic assistance to ensure that financial difficulties do not prevent students from attending school regularly and achieving success. Of course, the question of relevance and attitudes towards education need to be addressed. Indeed, as Jennings (2014) comments concerning the ROSE programme: “The achievement of goals such
as equity and social justice requires not only new skills and behaviours, but also changes in belief, attitudes and values. As long as powerful users are able to manipulate initiatives designed to achieve those goals in order to maintain the status quo, the changes desired will remain elusive ideals” (p. 257). Male under-achievement can be seen to be impacted by socialization, which takes place prior to entry into formal education, but is reinforced by the teacher-student relationship in the classroom and other practices in the educational space. So, while the school is not functioning well generally as a force for liberation, we certainly cannot say the school alone is at fault.

References


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Abstract

This paper discusses the implementation of a Speaking Across the Curriculum (SAC) initiative in the sciences. Results of this 2010 SAC intervention were a significant and positive change in student attitude to oral skills development, as well as a strong and positive relationship between students’ attitude to oral skills development (post-SAC), their perception of Instructor and the audience-centred method of delivery. In addition to this, students who were exposed to the SAC intervention demonstrated greater oral competence in oral presentations than students who were not exposed. The paper suggests that the audience-centred approach used contributed to the effectiveness of the initiative, serving to engage students and to enhance the perceived relevance of oral communication skills.

Key Words: Speaking across the Curriculum, communication, presentation and oral skills, audience-centred, teaching speaking

Communication Across the Curriculum: The Fast Emerging Global Requirement

“It is one thing to know; it is another thing to articulate, communicate and demonstrate that which you know” (Tavaf, unpublished). The value of equipping students with the requisite oral skills for their daily professional lives cannot be overstated. One mechanism which would ensure this is the infusion of essen-
tial oral communication skills into the academic curriculum. Such an initiative would undoubtedly aid in producing well-educated, well-rounded students who would enter the world of work fully equipped with the requisite tools for the effective and efficient oral delivery of information. In fact, Zekeri (2007), who examined college competence skills, reported that former students listed oral and written communication and public speaking among the essential skills acquired during college for their current professional lives. Moreover, researchers Donofrio and Davis (2007) show that college graduates’ communication skills often determine success in the professional spheres even more than their academic knowledge. However, they also point out that many students are lacking in these areas.

In keeping with the growing recognition of the significance of oral communication, many scholars such as Devonish and Taylor (2008), Engleberg and Wynn (2007), and Miller (2007) underscore the centrality of communication skills and the need to infuse the teaching of these into universities’ academic programmes. Engleberg and Wynn (2007) discuss a curriculum development process that has been standardized to assist in determining the studies that are relevant to academic curricula. Using the Developing a Curriculum (DACUM) database, Engleberg and Wynn (2007) analyzed 75 charts which span a period of five years. The analysis affirms the relevance of infusing speech into academic programmes.

Even without the empirical evidence, which heralds the way forward, many institutions have recognized the significance of addressing oral communication development. Donofrio and Davis (2007) emphasize that one of the requisites for accreditation from the American Assembly of Collegiate Schools of Business (AACSB) is that the curriculum must include an oral communication component, and cite Indiana University and Radford University as two institutions that have developed and implemented new courses for various areas in communication. The University of North Carolina also boasts a communication programme but, in addition, it hosts a Speaking Centre, the primary purpose of which is to enhance the oral competence and confidence of students, staff and even members of the community. The University offers workshops and both online and face-to-face consultations, demonstrating that there is a steady and growing recognition that oral competence development is essential.
Several academics further argue that not only is speaking significant, but that speaking is in fact significant to learning. According to Boyer (1987), speaking and writing form the basis of the successful student’s learning experience. He reiterates that without these tools, the student will not be able to express his or her thoughts and ideas efficiently (Boyer 1987). Bruner (1975) adds that separate and apart from giving an account of that present experience, it is language that enables thought. According to him, it is language that will be used by the students to actually think about and think through the learning experience (Bruner 1975).

This therefore has implications for the students’ ability to think critically, which is in keeping with the thinking of Zernike (1999). In her article, she articulates what many professors argue – that ‘speaking’ and ‘thinking’ are intricately connected. According to her, one does not only affect but also reflects the other [emphasis added]. She concludes her argument underscoring the relevance of not only learning to write, the need for which is generally more conspicuous in the academic circle, but also learning to speak effectively (Zernike 1999). Effective speaking is undoubtedly critical, but even more interestingly it is at the heart of learning, which is the primary goal of any educational institution. This belief is what drives the symbiotic missions of the Speaking Across the Curriculum initiative at the University of the West Indies; students are required to ‘learn to speak’ as they ‘speak to learn’.

**The UWI Initiative**

The Speaking Across the Curriculum (SAC) initiative at the University of the West Indies (UWI) is entirely in keeping with the UWI Strategic Plan 2007–2012 objective of “prepar[ing] a distinctive graduate for the 21st century – one who has a regional frame of reference . . .” and who possesses the attribute of “an effective communicator” [emphasis added]. Furthermore, this initiative was the outgrowth of an earlier intervention – Writing Across the Curriculum (WAC) – which was pioneered in 2006 by interested parties from within the Faculty of Pure and Applied Sciences [now called the Faculty of Science and Technology] and the English Language Section (of the Department of Lan-
guage, Linguistics and Philosophy), and funded via an Initiative Grant from the UW I administration. The project involved close collaboration between English language academics and those in the sciences in the identification and implementation of appropriate writing strategies within the science courses.

The WAC initiative was thought to be particularly critical since the quality of students’ writing had been repeatedly identified as a common weakness in their examination performance on terminal assessments at the secondary and post-secondary level. In fact, a 2007 report of the biology examiners of the regional assessment body pointed to “generally vague” responses of the candidates coupled with their apparent inability to write in a logical sequence and to communicate what they had intended to express. Consequently, the examiners recommended that students’ examination preparation should be focused on “practising how to interpret and answer questions clearly, concisely and to the point” (Caribbean Examinations Council 2007).

The WAC project was thus considered an important component of a campus-wide initiative which would “integrate English language teaching and usage into all aspects of the education of students in order to address and rectify the failure of many students to experience writing as an integral component of their university education in general, and their academic discipline in particular” (The Writing Centre Proposal 2006).

In the same vein, concerns about graduates’ oral presentation skills as well as concern about students’ spoken presentation among lecturers and members of the administration led to the conceptualization of a SAC initiative. Given the already close alliance being forged between the WAC proponents in the English Language Section (ELS) and WAC ‘converts’ in Science and Technology, it seemed appropriate to expand the current WAC initiative in that faculty via a SAC programme. The WAC/SAC initiative would later be referred to as the Communication Across the Curriculum (CAC) initiative.

As with WAC, SAC was welcomed by members of the science faculty, particularly those in chemistry and life sciences. Faculty in life sciences wanted their graduates to be able to use oral and written language clearly and effectively in their presentation of scientific knowledge to their respective audiences, as there were concerns that students were “... graduating with poor communication skills, as evidenced by comments made to us by their internship supervisors...
and subsequent employers” (Garraway, personal comment).

With this in mind, we formulated the following goals for the initiative:

- To enhance students’ learning of course content within their disciplines through the use of carefully designed speech communication activities.
- To introduce students to the disciplinary and professional conventions governing the different kinds of speech communication activities.
- To help bring students to the point where, at graduation, they were competent in listening, speaking and making oral presentations.
- In keeping with the desire for the assistance to be of perceived relevance to the specific discipline, an audience-centred, course-focused approach was chosen.

**Audience-Centred Approach**

“For of the three elements in speech-making: speaker, subject and person addressed – it is the last one: the hearer, that determines the speaker’s end and object” (Aristotle in Beeb and Beeb 2012, xxviii).

This statement was made very many years ago, but remains true to date. Perhaps the most crucial component of any speaking, public speaking, communication or presentation delivery module is “the Audience”. Lucas (1998) goes as far as reminding presenters that in delivering a message to the audience, it is not at all about them (the presenters). Instead, it is about encoding a truth in a manner that is graspable to the recipients of that message — the audience (Lucas 1998). If that is at the heart of speaking, teachers of any speaking-related course must therefore model the truth they speak, and in doing so reinforce its content en route to achieving their goals.

Beeb and Beeb (2012) also hold that central to a good speech are the audience’s needs, values, expectations and hopes, which ought to be considered from the preparation through to the delivery of that speech. Therefore, the speech is receptive to that which interests the audience and the audience in turn is likely to be more responsive to the message. Morgan (2003) supports this perspective and substantiates this in the observations he made over his 17 years of teaching.
and coaching public speaking. As such, he reiterates the importance in structuring his deliveries of understanding and responding to the psychological needs of the audience.

Morgan (2003) adds that audience-centeredness is paramount to being a good speaker as it is integral to making an intellectual, physical, and emotional connection with the audience that is capable of moving people in one direction or another. It follows then that audience-centeredness ought not to be restricted to what students are told, but should be extended to what the students experience in their skill development interactions with speech instructors (Beeb and Beeb 2012). As Morgan (2003) affirms, triumph in public speaking is the result of the many moments when one connects with the audience.

**Attitudes, Perceptions and Performance**

There are some internal factors which have an impact on performance which are also important considerations in the delivery of oral presentation skills. For instance, it has been found that attitudes toward communication skills training are an important antecedent to acquiring communication skills. In support of this, Budkaew and Kessom boon (2014) found a statistically significant correlation between a positive attitude to developing oral presentation skills and performance scores in this area \( p < 0.05 \) among sixth-year Thai medical students. Further to this is research on factors influencing student performance that are assumed to be relevant across domains. General findings on learning such as those reported by Light (2004) reveal that students conceptualize their study and learning activities in distinct and different ways, and that this has important implications for both teaching and learning. In addition, Ho, Watkins, and Kelly (2001) report that students’ perceptions of instruction influence teaching strategies, which in turn impact students’ approaches to learning. And according to Pintrich, Smith, Garcia, and Mckeachie (1993), students’ views and ideas on learning play a crucial role in performance, and it is essential to take these into account to optimize learning.

Thus, in order to attain a composite view of the effectiveness of the SAC intervention, the following research questions were formulated:
1. Are there differences in oral presentation performance between SAC and non-SAC chemistry students?
2. Are there differences in attitude to oral skills development pre- and post-SAC exposure?
3. What is the students’ perception regarding the instructor and the method of delivery?
4. What is the strength of the relationship between students’ attitude to oral skills and their perception of the instructor?

Procedure

In January of the academic year 2009/2010, the speaking intervention was offered to the following two (2) groups of science students:

1) 84 chemistry students sub-divided into four laboratory groups, comprising approximately 20 students each
2) Marine biology students sub-divided into two classes of 25 and 15 students.

In the case of the chemistry students, the course ran for a period of 10 weeks. In this 10-week period, the groups were on occasion split into two sub-groups [10 each] with the same topic being taught for two consecutive weeks. As a result, students got small group sessions and breaks in between the sessions. The biology group, on the other hand, ran for six straight weeks with no further division of the two sub-groups. The duration of the SAC intervention for both groups was one (1) hour per week. This hour predominantly entailed the following activities:

- greeting the students, which included finding out their states of mind
- a review of what had been done the previous week, which was often done by the students
- presentation and discussion of the new topic using examples and illustrations that either included the students and/or made reference to one or more area(s) of their studies
- speech activity related to the topic at hand in contexts that were relevant to them as individuals or to their areas of study
- a report from the students of what they learnt.
The topics that were covered varied. They addressed three main arms of presentation delivery: the speaker, the message and the audience. The objectives of these topics were to assist students in managing their anxiety so as to efficiently deliver presentations to audiences of various sorts, and also for them to become more confident speakers over time. Other objectives included enhancing students’ ability to structure and deliver coherent and effective presentations that were also audience-focused.

It was important to the instructor that she demonstrated, through her own presentations, good presentation techniques. In doing so, she would serve as a live aid, thereby making more concrete to her audience any content that might be perceived as abstract. In addition to that, audience integration was essential. This governed the approach to the topics, the examples, illustrations and aids used, as well as the activities that were done. It also determined the flow of the presentation as students were permitted to interrupt the speaker as she presented, though a degree of formality was still maintained. Also, students were called upon at any time. It should be pointed out, however, that the size of the group significantly affected audience integration. This was so as it is generally harder to facilitate individual participation and integration with larger groups. These are key elements for practical, hands-on instruction, which is central to audience integration. This therefore made it challenging to holistically employ the audience-centred approach to the biology groups, especially the larger of the two.

Perceived Outcomes

Nearly all students demonstrated an understanding of the relevance of enhancing oral competence by the end of the course. They showed appreciation for the initiative. These sentiments were expressed during class discussions and reported in testimonials. They were also evinced in the positive change of attitudes of the few students who, at the outset, had expressed negative attitudes towards the intervention.

For both biology and chemistry, the involvement of students’ own lecturers, teaching assistants, and lab assistants in some of the discussions reiterated and
reinforced the importance of SAC in the worlds of the sciences. Similarly, assistance from teaching assistants and lab assistants helped the instructor to better integrate SAC with the current topics in the sciences and the courses of studies. Also, the students’ own involvement allowed them to experience the benefits of SAC as was demonstrated in the final presentation and in their personal and written feedback.

Students who were generally reserved were more willing to speak up and speak out by the end of the period. Furthermore, those who were not as shy, but who were very nervous, took bold steps to deliver their thoughts, perspectives, and knowledge on a topic in their field. The presentations over time became more personalized, meaningful and relatable, as students dug deeper into their own understanding of a topic and made greater efforts to not only present information but to get their audiences to understand the information they were presenting. As a result of this, their own understandings were strengthened as displayed in classroom interactions and the final oral presentations. Generally, improvement was observed, when students’ terminal presentations were compared to the presentations they delivered prior to the intervention, using the same speaking criteria in the analysis of both sets of presentations.

**Measurement and Analysis of Data**

Both quantitative and qualitative measures were used to evaluate the actual outcomes of the initiative. Below are outlined, in chronological order, the various approaches that were taken in order to determine the responses for each of the four research questions. The survey instruments were subjected to t-tests statistical analyses as were the numerical outcomes of the performances of both groups of chemistry students.

**Research Question 1**

Differences in performance between SAC and non-SAC students were determined via performance on terminal presentations by applying an oral evaluation rubric (see Appendix 1). Marks in the rubric were done on a 3-point Likert scale
with scores ranging from agree (3) to disagree (1) [this has since been revised to a 5-point scale]. Scores were apportioned according to the areas that were explicitly covered during the course. The rubric was designed taking into account Lucas’ (1998) requirements of a good presentation and effective presenters. It was designed by the researcher in consultation with the language and presentation specialists and the scientists, to whom it had to be relevant.

The terminal presentations were done in groups. In order to assess the group as a whole, but still determine the performance of each student, the rubric was divided into two main sections. The first section focused on the overall design and structure of the presentation, reflecting the group’s effort and ability to work as a team. In order to make that determination, four sub-aspects were the points of focus. These included the introduction, the body, the conclusion, and effective use of supporting material, which also encompassed creativity. Under the section ‘body’, structure, flow, coordination, appropriate use of transitions and effective use of allotted time were the focal points. The second main section, evaluated the presenters individually. In this section six sub-sections were the points of consideration: the individual’s use of voice, gestures, and body movement; eye contact; anxiety management; and use of language. The first section was marked out of 12, while the second section was marked out of 18. Together, they totalled 10 sub-sections and a potential earning of 30 marks.

While industrial chemistry students did not participate in the SAC intervention, some of the SAC students in analytical chemistry were also students of industrial chemistry. Since the industrial chemistry course had both SAC and non-SAC students, the terminal performances of these two sets of students were compared in order to determine the response to this research question (Question 1).

**Research Question 2**

In order to determine the difference in attitude to oral skill development pre- and post-SAC intervention, students were given a 10-item questionnaire before and after the intervention (see Appendix 2).

In designing the survey instrument, we took into account McLeod’s (1991)
assertion that rather than being considered as merely affective, responses such as grief, anger and joy, attitudes should be viewed as “psychological states acquired over a period of time as a result of our experiences; these attitudes influence us to act in certain ways” (p. 98). We also considered other related research such as that of Pajares (1993) and Guskey (1986) which contends that not only do attitudes influence behaviour in a complex way, but they also emerge as an outcome of language learning.

The 10-item instrument (Appendix 2) was developed over a three-month period by the researcher in consultation with colleagues in the field of English language pedagogy and education psychology. It was piloted on a group of 40 students of Levels 2 and 3 chemistry prior to their exposure to WAC (Writing Across the Curriculum) activities. Based on the Item-total statistics report, items were revised or eliminated and replaced, resulting in a Cronbach Alpha value of .77.

The items sought to determine students’ beliefs concerning the importance and usefulness of writing (Q.1, 2, 5, and 8), their behaviour (autonomy and motivation) (Q.3, 4, 6, and 7) and self evaluation of their writing ability and confidence in their writing skills (Q.9 and 10). Likert scale scores ranged from strongly disagree (1) to strongly agree (5). Students from all the courses were administered the questionnaire at the beginning of the course before they were introduced to WAC strategies, and at the end of the semester, prior to exams.

**Research Question 3**

In order to find out students’ perception regarding the instructor and the method of delivery, students were given an evaluation sheet (see Appendix 3) with two sections, one for each enquiry.

Section A of the evaluation, which was adapted from the UWI Teacher Evaluation Sheet (Cronbach Alpha reliability=.92), was used to determine predominantly the students’ perception of the instructor. The 15-item instrument, using Likert scales scores ranging from strongly agree (5) to strongly disagree (1), sought to make determinations extending from preparation and delivery to post-delivery. These included the students’ perception of the instructor’s
readiness for class (Q1), knowledge of the subject matter (Q2), delivery – including use of effective methods, aids and approaches (Q3, 4, 6, 7, 8, 11 and 12), ability to inspire and build confidence (Q5 and 9) to integrate (Q8 and 14), as well as to give of feedback (Q13) and overall performance (Q15). The responses were tabulated and subjected to statistical analysis.

Section B was a free response section. Students provided short responses to the following five general questions which sought to verify their experiences of the teaching method employed. What do you appreciate the most about the instructor’s method of teaching?

1. What do you least appreciate about the instructor’s method of teaching?
2. What do you find to be most effective about how the course was delivered and why?
3. What would you change about the how the course was delivered and why?
4. If there is any other point that you would like to note about the delivery of the course, the instructor’s style of presenting or the course in general, please state here.

The responses for each question were examined for emerging and recurring themes. Each theme was listed and each occurrence was noted in order to determine the strength of that occurrence. This two-part instrument was issued to both the chemistry and biology students who experienced the SAC intervention.

**Research Question 4**

In order to determine the strength of the relationship between students’ attitude to oral skills and their perception of the instructor, correlation statistical procedures were carried out between students’ attitude (based on Student Attitude Survey) and student perception of teacher (based on Teacher Evaluation Survey Instrument).

**Results**

The results obtained from statistical procedures and qualitative analyses with respect to the related research questions are outlined below:
1. Are there differences in oral presentation performance between SAC and non-SAC chemistry students?

There was a significant difference in oral presentation performance between those who had been exposed to the SAC module and those who had not been exposed, with those who had experienced the SAC intervention demonstrating a significantly higher level of performance than their non-SAC counterparts (table 1).

Table 1: T-test on oral presentation performance for SAC and non-SAC Chemistry groups

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>df</th>
<th>Mean</th>
<th>SD</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAC</td>
<td>13</td>
<td>12</td>
<td>4.0</td>
<td>.552</td>
<td>.153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non SAC</td>
<td>13</td>
<td></td>
<td>3.7</td>
<td>.363</td>
<td>.100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Equal Variances

Not assumed 2.255 .04

p<.05

2. Are there differences in attitude to oral skills development pre- and post-SAC exposure?

There was a significant and positive change in chemistry students’ attitude to oral skills development after SAC intervention (table 2a). The attitude of chemistry students was also significantly more positive compared to that of life sciences students (table 2b).

Table 2a: T-test on Chemistry students’ attitude to oral skills development pre and post SAC exposure

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>df</th>
<th>Mean</th>
<th>SD</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre SAC Exposure</td>
<td>69</td>
<td>68</td>
<td>40.2</td>
<td>4.9</td>
<td>.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post SAC Exposure</td>
<td>69</td>
<td></td>
<td>43.5</td>
<td>3.2</td>
<td>.39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Equal Variances

Not assumed 6.30 .000

p<.000
3. What is the students’ perception regarding the instructor and the method of delivery?

There was a highly positive perception of the instructor (mean = 64.5 out of a possible total of 75). Free responses showed recurring themes of “engaging”, “interactive”, “audience-focused delivery”, “her passion”, “creative aids”, “appreciation of examples used” and “audience-integration”. Of the possible 107 responses across students, these themes were the most prominent in response to the questions: “What do you appreciate the most about the instructor’s method of teaching?” and “What do you find to be most effective about how the course is delivered?” The most frequent answers to the questions “What do you least appreciate about the instructor’s method of teaching?” and “What would you change about how the course was delivered and why?” were “nothing” and “not applicable”. Some students, particularly the chemistry ones, highlighted that the time was too short, and also indicated that they would prefer to have had sessions outside of their lab times. Though these responses were not directly related to the methodology, they do inform us of other considerations for the implementation of SAC. In response to the final question: “If there is any other point that you would like to note about the delivery of the course, the instructor’s style of presenting or the course in general, please state here”, of those who responded the most recurrent theme was “(the) Instructor is commendable” and second to that was, “Delivery was awesome, fun and interactive”.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>df</th>
<th>Mean</th>
<th>SD</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry</td>
<td>74</td>
<td>73</td>
<td>72.1</td>
<td>4.4</td>
<td>.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Sciences</td>
<td>36</td>
<td>35</td>
<td>70.7</td>
<td>4.2</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal Variances</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.36</td>
<td>.000</td>
</tr>
</tbody>
</table>

\( p < .000 \)

**Table 2b:** T-test on Chemistry and Life Sciences students’ attitude to oral skills development post SAC exposure
4. What is the strength of the relationship between students’ attitude to oral skills and their perception of the instructor?

A strong and positive relationship was found between students attitude to oral skills development (post-SAC), perception of Instructor and method of delivery (.957; p<.000) (table 3).

Table 3: Correlation Analysis – Students’ attitude to SAC and evaluation of instructor

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students (n=80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student attitude to SAC.</td>
<td></td>
<td>.957</td>
</tr>
<tr>
<td>Student evaluation of Instructor</td>
<td>.957</td>
<td></td>
</tr>
<tr>
<td>sig</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

Findings of Qualitative Methods

Qualitative methods revealed the following findings: (i) a very high level of positive student responses; (ii) a desire on the part of both students and lecturers to have the speech intervention become a permanent part of the curriculum; (iii) chemistry lecturers’ willingness to revise courses in areas such as weighting and mode of evaluation to accommodate SAC within the chemistry curriculum.

In addition to those listed, the majority of the students appreciated the method of delivery used because they believed it was interactive, lent itself to student participation, and reflected . passion and care for students on the part of the instructor.

Challenges and Limitations

The relatively short time period of one hour per week, even when delivery took place over a 10-week period, was not enough to satisfactorily fulfil the aims of this intervention. For instance, some topics could have had more subject-focused activities. Had this been achieved, which is in keeping with the audience-centred approach, it would have enabled greater reinforcement of communication concepts for that specific discipline.
Additionally, the instructor had to be cognizant of several factors simultaneously while addressing students individually and moving the class collectively. Some of the considerations included each student’s personality, attitude towards speaking, and level of participation (Lucas 1998). This had to be done while encouraging them to participate, and being mindful of their various challenges as they aimed to improve their own speaking skills. This was even more difficult when catering to the larger classes, such as the biology groups, which had an even shorter interface. The greater class size, the less individual attention and participation. This is not recommended for a practical skill development course. It diminishes practice time and opportunities for individual feedback, which would have fostered opportunities to measure growth. Instead, the structure facilitated introversion in the more reserved students. As the chemistry classes were reduced to approximately ten students, there was greater opportunity to engage each student and cater to his or her specific needs, yet in the post-SAC survey, the students indicated that an additional half an hour each week would have helped significantly.

Notwithstanding, whereas the chemistry students, in particular, appreciated the initiative and would have even desired the allotted time to have been extended, SAC interfered with their lab work. This created anxiety, which was exacerbated when they were unable to execute lab tasks in the given time. They then thought that additional time for lab work was the answer, and that SAC had robbed them of that added time. Furthermore, SAC sessions were held in the laboratory, which might have encouraged that thinking. Besides the potential role of the organizers in addressing this issue or eradicating this perception, the presenter also has a job to do. A presenter’s response to what his or her audience considers important will often determine the audience’s response to the topic that the presenter is introducing (Lucas 1998). It was therefore important that the instructor projected empathy while establishing the relevance of the initiative in their own minds by integrating its concepts and goals with matters they already perceived as relevant. This is an audience-centred strategy. This required some degree of persuasion, and as Hay and Brandt (1992) inform in Cooper’s analysis of persuasive arguments and attempt to structure rhetorical education, the attempt to persuade should convey a concern for the audience and a consideration for any opposition. If this is achieved, the audience will
then perceive the intervention as relevant, which, as seen in the results, was even more evident among the chemistry than the life sciences students.

Conclusions and Recommendations

In summary, there is increasing recognition of the benefits to be derived from having a speaking intervention across curricula. As a result, many universities around the world are coming on board. The University of the West Indies, particularly the Faculty of Science and Technology, has been moving to enhance its students’ oral competence in preparation for the world beyond the laboratories and lecture theatres. In response to their interest, a pilot project was embarked on in January 2010 which used the generally recommended audience-centred method of delivery. The project sought to determine students’ performance in and attitude towards the programme, their perception of the method of delivery, and their attitudes to the intervention in relation to this perception.

Data collected in the pilot project showed a positive relationship between students’ attitude to oral skills development and perception of instructors who employed an audience-centred method of delivery. This was even more evident among the chemistry students, with whom the audience-centred approach yielded better results due to smaller class sizes. Not only did the students have a positive change in attitude but they demonstrated greater oral competence when compared to students who were not exposed to the infusion, irrespective of the various challenges that were encountered in the execution.

As a result of this experience, the following suggestions are made:

1. A foundation course in Speaking and Presenting at level 1 or 2 that is focused on the communicative needs of the specific discipline should be established. This would serve the two-fold purposes of (i) laying the foundation for speech infusion into selected courses, and (ii) providing students with the knowledge and practice they need in the area of oral communication for their academic and professional purposes.

2. Class schedule and size in the speaking and presentation delivery course should be structured with opportunities for meaningful, small group interactions.
3. There should be more involvement on the part of teaching/lab assistants as well as lecturers in preparation and discussion. This would

- reinforce the importance of Speaking and Presenting in the students’ personal and academic development
- enhance contextualization of material and foster more subject-focused discussions.

In conclusion, the SAC initiative is integral to the overall goals of The UWI and indeed of any university that desires to produce a calibre of students who can competently articulate the knowledge gained at their respective institutions. The foundation has been laid for developing competence in speech among science students at The UWI as a result of this initiative. However, the 2009/2010 data, which indicate the effectiveness of the Speaking Infusion, suggest that if this audience-centred SAC initiative is implemented over the long term, not only will its overarching goals be met, but also participants’ appreciation of the development of oral competence and its perceived relevance will be enhanced.
Appendix 1: Oral Evaluation Rubric

ORAL PRESENTATION COMPETENCY INSTRUMENT

Student’s Name ____________  Evaluator’s Name ____________

Circle one of the numbers after each question based on your analysis of the task: (3) agree, (2) average or (1) disagree

GROUP

I. INTRO.  The Structure of the Introduction is effective 3 2 1
– use of attention getter
– clear purpose
– preview of main points
– motivation

II. BODY  Pattern of Organization is clear and appropriate 3 2 1
– structure, flow
– coordination
– appropriate use of transitions to develop points
– effective use of allotted time

III  Effective Use of Supporting Material 3 2 1
– visuals
– other creative means

IV CONCLUSION

The Structure of the Conclusion is effective 3 2 1
– transition signal
– review of main points
– strong closing

INDIVIDUAL

1. Appropriate use of voice re: 3 2 1
– pace/speed
– volume/projection
– no distracting vocal mannerisms
2. Use of appropriate gestures and body movement
   – smooth, controlled, natural
   – no distracting physical mannerisms

3. Effective diction
   – clear and distinct enunciation
   – correct pronunciation

4. Maintains eye contact

5. Manages anxiety

6. Language Use
   – appropriate level of formality
   – reflects awareness of audience
   – clarity, conciseness/correctness
Appendix 2: Attitude Survey

SPEAKING ACROSS THE CURRICULUM SURVEY

ID* .........................  Gender: Male Female
Age: Under 18; 18–20; 21–24; 25 and over

SECTION A
The following cover a possible range of approaches to writing at university. Please indicate your response to each statement by CIRCLING the rating that best describes your approach.

SA = Strongly Agree; A = Agree; U=Undecided; D = Disagree; SD = Strongly Disagree. Please respond to ALL statements.

<table>
<thead>
<tr>
<th></th>
<th>Writing is a tool for learning</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Writing is a tool for learning</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>2.</td>
<td>Good writing skills will enhance my performance in my future career</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>3.</td>
<td>I usually plan my time so I can draft and revise papers prior to final submission</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>4.</td>
<td>I am willing to use feedback, I receive on my papers to improve my writing</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>5.</td>
<td>Writing in the Sciences is equally important as writing in the Humanities</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>6.</td>
<td>In general, I work on my papers so that they reflect the best writing I am capable of</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>7.</td>
<td>I am willing to undertake whatever additional work is necessary to improve my writing</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>8.</td>
<td>Lecturers should not, under any circumstances, award As to students with poor writing skills</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
</tbody>
</table>
SECTION B

The following statements seek to determine your prior experiences with writing as well as your perception of your writing ability. Please indicate your response to each statement by circling the rating or descriptor which relates most closely to your perception or experience.

9. Which of the following best describes your level of confidence when writing assignments for your courses?
   Very High        High        Medium        Low        Very Low

10. Which of the following best describes your writing skills?
    Excellent        Good        Satisfactory        Fair        Poor

END OF QUESTIONNAIRE
THANK YOU

POST SURVEY FOR SPEAKING ACROSS THE CURRICULUM STRATEGY

ID*....................... Gender: Male Female
Age: Under 18; 18–20; 21–24; 25 and over

SECTION A

The following cover a possible range of approaches to writing at university. Please indicate your response to each statement by CIRCLING the rating that best describes your approach.

SA = Strongly Agree; A = Agree; U = Undecided; D = Disagree; SD = Strongly Disagree. Please respond to ALL statements.
SE CTIO N  B

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<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Writing is a tool for learning</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>2. Good writing skills will enhance my performance in my future career</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>3. I usually plan my time so I can draft and revise papers prior to final submission</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>4. I am willing to use feedback, I receive on my papers to improve my writing</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>5. Writing in the Sciences is equally important as writing in the Humanities</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>6. In general, I work on my papers so that they reflect the best writing I am capable of</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>7. I am willing to undertake whatever additional work is necessary to improve my writing</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>8. Lecturers should not, under any circumstances, award As to students with poor writing skills</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
<td>SD</td>
</tr>
</tbody>
</table>

The following statements seek to determine your prior experiences with writing as well as your perception of your writing ability. Please indicate you response to each statement by circling the rating or descriptor which relates most closely to your perception or experience.

9. Which of the following best describes your level of confidence when writing assignments for your courses?
   Very High High Medium Low Very Low

10. Which of the following best describes your writing skills?
    Excellent Good Satisfactory Fair Poor

END OF QUESTIONNAIRE

THANK YOU
Appendix 3: Instructor Evaluation

**Student Evaluation of Instructor**

This is your opportunity to evaluate anonymously the class in which this survey is distributed. By filling out this form, you let your instructor know what is being done right and what areas need improvement. The results will be used to assess the performance and effectiveness of the instructor for SAC.

Semester: ________ Year: ___________ Course Code: _________

Time: ________

Instructor: _________

**SECTION A**

Directions: Please indicate your response to each statement by CIRCLING the rating that best describes your approach.

SA = Strongly Agree; A = Agree; U = Undecided; D = Disagree; SD = Strongly Disagree. Please respond to ALL statements.

Please respond to ALL statements.

*The Instructor*

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Was usually well prepared</td>
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<td>2. Was knowledgeable in the subject matter</td>
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<td>3. Used effective teaching methods and/or aids</td>
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<td>4. Explained the material in a way that I could understand</td>
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<td>5. Inspired interest in the subject matter</td>
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<td>6. Established clearly the purpose of each topic discussed</td>
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### SECTION B

Directions: Please respond freely and frankly to the questions below.

5. **What do you appreciate** the most about the instructor’s method of teaching?

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

6. **What do you least appreciate** about the instructor’s method of teaching?

   ____________________________________________________________
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<td>7. Used appropriate and relevant examples that made material clear</td>
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<td>8. Provided sufficient opportunity for hands-on experience of the material discussed</td>
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<td>9. Was helpful in developing my intellectual self-confidence</td>
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<td>10. Was helpful in developing my grasp of the subject</td>
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<td>11. The material covered was presented in a way that was understandable and engaging</td>
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<td>12. The objective of the course was clearly communicated</td>
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<td>13. Feedback given to exercises done was generally helpful</td>
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<td>14. Interactions with the instructor helped me to understand the course material</td>
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<td>15. Overall the instructor’s performance was satisfactory</td>
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7. What do you find to be **most effective** about how the course was delivered and why?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

8. What would you **change** about the how the course was delivered and why?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

9. If there is any other point that you would like to note about the delivery of the course, the instructor’s style of presenting or the course in general, please state here.

________________________________________________________________________

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References


Abstract

This paper presents the results of research into the teaching and learning of Spanish through the use of Computer-Mediated Communication (CMC) tools, particularly Skype™ conference calls. This study was carried out with a group of 10 Spanish as a Foreign Language (SFL) A2 learners in the Modern Languages and Literatures Department of The University of the West Indies, Mona Campus. This research was structured and carried out as qualitative action research. The main findings suggest that Skype™ conference calls might play a significant role in the promotion of oral language skills from out-of-class learning environments and inter-cultural exchange practices in the teaching and learning of Spanish.

Key words: speaking skill, computer-mediated communication tools in SFL, Skype™ conference calls in language teaching and learning.

Introduction

For many decades, the teaching and learning of foreign languages has been of concern and constant revision both in the Caribbean context where this study took place and across the whole world. In the Caribbean scenario, efforts of local (Jamaican) and regional entities are frequently combined to enhance the
way foreign languages are taught and learned from early education up to tertiary educational settings. In this regard, Information and Communications Technology (ICT) has gained importance and has undoubtedly revolutionized approaches to foreign language teaching and learning processes. In fact, more and more foreign language educators have chosen to integrate this technology into their teaching practices, including those in the Department of Modern Languages and Literatures at The University of the West Indies; this is in keeping with its constant quest for more contemporary ways of boosting quality in foreign language education.

Most of the students in the Department of Modern Languages and Literatures have studied a foreign language, either French or Spanish, for more than three years. In the particular case of Spanish, many of them started it at primary school. Actually, a large number of the students chose Spanish as their elective foreign language for both their CSEC (Caribbean Secondary Education Certificate) and CAPE (Caribbean Advanced Proficiency Examination) exams. According to the Caribbean Examinations Council (CXC) official website (2011), CSEC subjects examined for certification at the general and technical proficiencies provide students with the foundation for further studies and entry to the workplace. On the other hand, CAPE is designed to provide certification of the academic, vocational and technical achievement of students in the Caribbean who, having completed a minimum of five years of secondary education, wish to further their studies (CXC 2011).

Two key learning outcomes of the programme in Spanish in the Department of Modern Languages and Literatures include being able to solve communicative problems and using the foreign language in an effective way in everyday life situations. In this respect, class observations and statistics indicate that despite the various years of exposure to the Spanish language, the participants in this research study tended to have low scores in components of their assessment, especially with regard to their spoken production. Additionally, the participants had limited opportunities to speak Spanish during their ordinary classes, despite their one-hour weekly tutorial class. Moreover, the students’ exposure to the target language was mainly restricted to their Spanish classes, as English is the official language of Jamaica. Learners therefore tended to have rather limited access to the target language (especially for oral language practice).
both inside and outside the classroom, which is the norm in the majority of foreign language learning contexts (Pawlak, Waniek-Klimczak, and Majer 2011).

The above outlined facts were the reasons and motivation for this research. The research questions were 1) To what extent does the use of Skype™ conference calls promote the speaking skills of young adult A2 learners of Spanish as a foreign language (SFL) outside of formal classroom settings?, and 2) What SFL language teaching/learning insights can be gained about the promotion of the speaking skills of young adult A2 SFL learners via the implementation of Skype™ conference calls as a computer-mediated communication tool?

The following sections of this article discuss the concepts of the speaking skill in foreign language teaching and learning, CMC tools in language learning and teaching, and Skype™ conference calls in language learning and teaching. The methodology, results and conclusions are then presented.

The Speaking Skill in Foreign Language Teaching and Learning

Many of my students’ everyday conversations confirm that the speaking skill still remains an unsatisfied ability in the language classroom. As a language teacher, I usually hear statements of this type from my students: “I understand many things I hear in Spanish but when I have to speak, I feel like I cannot say a word,” or less optimistic positions such as: “I have studied Spanish for years and I cannot speak Spanish yet. I feel I will not ever speak Spanish.” From the teachers’ perspective, Thornbury (2005) cites the following examples: “My students always say that they want more speaking, but I don’t know how to teach it, apart from giving them lots of useful expressions” or “My business students are good at giving presentations, but they can’t have even the simplest presentations. How can I help them improve?” (p. 1). These teachers and learners’ common declarations corroborate the assumption of Martin Bygate (1987) that speaking is in many ways an undervalued skill in the language classroom. Baker and Westrup (2003) also state that speaking is a neglected language skill in many classrooms. These statements also point out some of the common dilemmas that teachers face when trying to address the teaching of speaking (Thorn-
bury 2005). In fact, the speaking skill is viewed by many language teachers and students as one of the most challenging skills to develop. In this regard, Brown and Yule (1983) state that “learning to talk in the foreign language is often considered to be one of the most difficult aspects of language learning for the teacher to help the student with” (p. 25). Likewise, Thornbury (2005) affirms that speaking represents a real challenge to most language learners.

Computer-Mediated Communication (CMC) Tools in Language Learning and Teaching

Thurlow, Lengel and Tomic (2004) broadly define CMC as any human communication achieved through, or with the help of, computer technology (p. 15). In other words, CMC refers to “an integration of computer technology with our everyday lives and it studies how human behaviors are maintained or altered by exchange of information through machines” (Wood and Smith 2005, 4). From the perspective of language learning and teaching, Kern and Warschauer (2000) state that CMC allows language learners with network access to communicate with other learners or speakers of the target language. CMC tools are thus advantageous to teachers and researchers alike as they provide a method of monitoring learner output easily and relatively non-intrusively (Levy and Stockwell 2006).

CMC allows for two types of online communication: synchronous and asynchronous (Wood and Smith 2005, 42; Lamy and Regine 2007). For the purpose of this research, Skype™ conference calls are categorized as synchronous communication tools. Hrastinsky (2008) affirms that media such as video conferencing and chat commonly support synchronous communication and these have the potential to support e-learners in the development of learning communities. In this respect, Richards and Schmidt (2002) state that in computer-assisted language learning, synchronous communication refers to communication that is instantaneous, with all participants logged onto their computers and sending messages in real time. Language classes often use this type of communication in the form of Internet chat, or with specialized programs (p. 533). Hrastinsky (2008) affirms that the advantages of synchronous
communication include the fact that learners and teachers experience such e-learning as more social, and avoid frustration by being able to ask and answer questions in real time. Synchronous sessions help e-learners feel like participants rather than isolates (Hrastinsky, 2008). Similarly, but with focus on the language-teaching field, Lamy and Hampel (2007) contend that synchronous communication fosters peer collaboration and can be used to give feedback to students as well.

**Skype™ Conference Calls in Language Learning and Teaching**

Sheppard (2006) states that Skype™ is a free computer program that can be used to make telephone calls over the Internet and that can also be used to make conference and video calls, to chat, and to transfer files. Abdulezer, Abdulezer, and Dammond (2007) claim that Skype™ can dramatically alter how you exchange information, how you meet new people, and how you interact with friends, family and colleagues. Chen and Cordier (2008) maintain that Skype™ offers one of the most popular Voice-over-Internet-protocol (VOIP) services and with a computer, an Internet connection and a few simple steps, foreign language speakers and learners can connect with and call one another across time zones. Chen and Cordier (2008) also state that with Skype™, one can dial a contact (provided the person being called has also downloaded Skype™) and talk to and from any country using a headset and microphone plugged into the computer.

Although there are many different Skype™ applications nowadays, for the purpose of this research, the main Skype™ feature used was the conference call. This was seen as a valuable tool to generate meaningful communication and interaction among the participants in this research. More importantly, it allowed the researcher to closely monitor the students’ progress in their spoken language skill.

Although many consumer audio and video conferencing tools are available on the market (iChat, Skype™, MSN Messenger and so on), literature on the use of such tools is still scarce (Kinoshita, 2008). Moreover, Skype™ conference calls have mostly been used for English language rather than Spanish language
teaching purposes. Godwin-Jones (2005) explored the use of Skype™ and podcasting for language teaching and learning purposes in online environments. Overall, he found that both Skype™ and podcasting could be considered ‘disruptive technologies’ in that they allow for new and different ways of doing familiar tasks while offering intriguing opportunities for language professionals and learners via additional channels for oral communication. Elia (2006) conducted research into the effect of Skype™ for language learning in Tandem². To do this, she used The Mixxer, which is a free educational website for language exchanges via Skype™ (accessible at http://www.language-exchanges.org/). She concluded that “Skype™ language learning through ‘Mixxer’ can be a convincing application to be widely supported, experimented, and its efficacy monitored in different language learning contexts, as it can be a valid aid in trying to support language learners who always face problems connected to the difficulty in having contact with native speakers.” (p. 275).

More recently, Coburn (2010) conducted an action research study focused on the online teaching of English conversation through Skype™. He concluded that information elicited from interviews with eight conversation facilitators showed how conversation assignments needed to be designed in order to facilitate interaction patterns conducive to language learning. In other words, there was a need to introduce new tasks for weaker students though this implied that students would need to bring printed resource materials with them to the online conversations. As for the intermediate students who already possessed sufficient linguistic resources to interact more easily, increased task variety and more student-centred topics could offer relief for struggling conversation facilitators and students (Coburn 2010).

In Colombia, Beltrán (2009) conducted a research study in fulfillment of the requirements for the degree of Master in English Language Teaching – Autonomous Learning Environments at the Universidad de la Sabana, in Chía, Colombia. She explored the use of Skype™ chat for improving writing skills in an A2 adult learners group. She concluded that Skype™ text chat prompts students’ motivation through the use of technology, and that it is an opportunity to improve the teacher’s performance (Beltrán 2009). The target population of Beltrán’s study was similar to the population of this research in regard to the participants’ chronological age (adult learners) and their language levels.
However, in respect to the learning context, research focus and target language, the main characteristics of Beltrán’s study were totally different from those of participants in this research.

**Methodology**

This research reflects the features and conditions of qualitative research. According to Corbin and Strauss (2008) qualitative research allows researchers to get at the inner experience of participants, to determine how meanings are formed through and in culture, and to discover rather than test variables. Under the umbrella term of ‘qualitative research’, one finds ‘action research’, defined as an investigation conducted by the person or the people empowered to take action concerning their own actions, for the purpose of empowering their future actions (Sagor 2005). Burns (2010) adds that action research (AR) can be a very valuable way to extend our teaching skills and gain more understanding of ourselves as teachers, of our classrooms and of our students.

The data collection instruments chosen for the development and implementation of this research were the participants’ reflection journals, the researcher’s reflection journal, surveys and focus groups. The journal provided the researcher with a space to reflect critically and analytically upon emerging events and constraints of the study, learners’ talk, and classroom procedures related to the intervention process of this research study. In this regard, Burns (2010) states that journals are extremely useful as a way of capturing significant reflections and events in an ongoing way. A total of three focus groups (two of three participants and one of four participants) were formed at the end of the pedagogical intervention phase of this research. According to Stringer (2007), a focus group provides other means of acquiring information and might be characterized as a group interview. In this respect, Burns (2010) affirms that “focus groups have the advantage of taking the individual spotlight off one speaker, who may get nervous or anxious about being interviewed, and allowing ideas and thoughts to be triggered by others in the group” (p.77). One survey was administered at the end of the pedagogical intervention process. According to Stringer (2007), a survey may provide a very useful tool for extending the data collection to a
broader range of participants in later stages of action research. Burns (2010) also affirms that surveys completed by your students on various aspects of language learning can provide you with good sources of information.

**CONTEXT AND PARTICIPANTS**

This research was undertaken at The University of the West Indies, Mona Campus in the Department of Modern Languages and Literatures. The participants included 10 SFL young adult A2 learners whose ages varied from 20 to over 50 years old. Three of the participants were men and seven were women. The learners’ educational background varied as they came from different socio-economic groups and academic backgrounds. The majority of the participants (eight out of ten) were pursuing their undergraduate studies in foreign languages (Spanish or Spanish and French). The other two students, whose minor was in Spanish, were from other faculties of the University. Students were also in different academic years: four in the first year, four in the second year and two in the third year.

**PROCEDURE**

The research process was divided into three main stages: before, during, and after pedagogical implementation.

*Pre-implementation stage*

This initial stage was devoted to informing the participants and the administrative staff in the Department of Modern Languages and Literatures of the main objectives of the implementation of this research.

*Implementation stage*

During this stage, online Skype™ conference calls were made over an eight-week period, totaling approximately 80 hours of pedagogical intervention, the
number of hours being determined by participants’ time availability. The online sessions were scheduled on Fridays from 9:00 a.m. to 12:00 p.m., Saturday mornings from 9:00 a.m. to 12:00 p.m., Saturday afternoons from 2:00 to 5:00 p.m. or Sunday afternoons from 2:00 to 5:00 p.m.

The dynamic of the online encounters was as follows: The first four weeks were mainly devoted to the teacher-researcher having weekly one-to-one conference calls of 45 minutes with each participant. The topics of discussion for these first four online sessions were the same topics that the participants had previously covered during their ordinary face-to-face sessions (during their seminar, lecture, tutorial and lab classes). These were the topics chosen for the online Skype™ encounters since the idea was to provide learners with the opportunity to orally practise the same topics that they had gone through during their class sessions. Thus, each session was mainly intended to practise and promote the learner’s speaking skill through an online-based learning environment. The following two sessions (encounters five and six) took the form of one-hour group conferences in which five people participated: three students, one special guest and the teacher-researcher. The role of the teacher-researcher during these special encounters was that of a monitor/facilitator. The main aim of these conferences was to expose learners to other different accents and cultural backgrounds and experiences of native Spanish speakers, and to provide learners with the opportunity of interviewing these speakers about their principal cultural features and values, such as food, traditions, education and clothes. The special guests also questioned learners about their own cultural characteristics. After the interaction with the native Spanish guest, the teacher-researcher remained online with students, giving them each individual recommendations, for example with regard to their pronunciation, grammar and language structure. The last two sessions (encounters seven and eight) were devoted to providing students with an online scenario where they could practise and prepare for their end-of-semester final oral examinations. These last two encounters also consisted of one-to-one conference calls of 45 minutes with each participant.

Participants were asked to answer a reflection question after each Skype™ conference session with the purpose of collecting their opinions and feelings about each online encounter. The reflection question was ‘¿Cómo se sintió usted en su sesión de Skype™ hoy y por qué? – How did you feel in the
Skype™ conference today and why?’ To ensure that participants answered this question, they were required to respond to it in writing in their reflection journal after each online session, and to submit their journal to the researcher in their next face-to-face class.

Post-implementation stage

After the 80 hours of pedagogical intervention had been completed via online Skype™ sessions, the researcher made use of two data collection instruments: a survey and a focus group. Both instruments aimed at collecting data related to the participants’ experience of using Skype™ conference calls to improve their speaking skill in course content areas.

Data Analysis

A qualitative data analysis procedure was used in this research. Corbin and Strauss (2008) define qualitative data analysis as “a process of examining and interpreting data in order to elicit meaning, gain understanding, and develop empirical knowledge” (p. 1). Taking into consideration that a whole range of procedures can be employed in analyzing qualitative data (Dey 1993; Norton 2009; Darlington and Scoot 2002), the methodology of data analysis adopted in this research was Grounded Theory. Grounded theory is a specific methodology developed by Glaser and Strauss (1967) for the purpose of building theory from data, and it denotes theoretical constructs derived from qualitative analysis of data (Corbin and Strauss 2008).

In order to successfully develop grounded theory, it is necessary to use a coding procedure (Auerbach and Silverstein 2003; Corbin and Strauss 2008). Corbin and Strauss (2008) define coding as “deriving and developing concepts from data” (p. 65). In the same way, Dey (1993) affirms that coding is a process of creating categories and assigning them to selected data. The main coding procedures followed for the analysis of data in this study were open coding, axial coding and selective coding. In this research, open coding was understood as the process of breaking data apart and delineating concepts to stand for blocks of raw data. Such concepts were qualified in terms of their properties and
dimensions (Corbin and Strauss 2008). **Axial coding** was understood as the process of crosscutting or relating concepts to each other (Corbin and Strauss 2008). The third term, **selective coding** is the final step of analysis for researchers whose research aim is theory building, and it requires sifting and sorting through memos and looking for cues on how all categories might fit together (Corbin and Strauss 2008).

It was necessary to make use of the principles of **triangulation** in order to validate the emerging conclusions and findings resulting from the process of seeking relationships between categories as named by Corbin and Strauss (1990). Triangulation is “the process of collecting data from several different sources or in different ways in order to provide a fuller understanding of a phenomenon” (Richards and Schmidt 2002, 565). In Golafshani’s words (2003) “triangulation is a strategy that improves the validity and reliability of research or evaluates findings” (p. 603). Obtaining data from more than one source (e.g. interviews, observations, and documents) is the most commonly used type of triangulation (Richards and Schmidt 2002). This research study used surveys, focus groups and the researcher and participants’ reflective journals as the main data analysis sources in order to triangulate the information collected from the participants and that contained in the researcher’s journal. A comparative chart of the students’ performance during their oral examinations in the semester immediately before the study and after their participation was also used to validate the results (see Appendices 1 and 2).

**Results**

The rigorous analysis procedure proposed by Strauss and Corbin (2008) which stipulates moving from open coding to axial coding to selective coding resulted in one central or core category in this research. The central or core category in this study was identified as: “Promoting oral language skills from out-of-class learning environments and increasing intercultural exchange practices in Spanish language learning”. This core category has the ability to explain or convey “theoretically” what this research was all about (Strauss and Corbin 2008).

The major categories identified in this research which resulted in the above
Outlined core category were these: First, “Promoting oral language skills from out-of-class learning environments” which responds to the first research question. The second was “Increasing intercultural exchange practices in Spanish language learning”, which responds to the second research question. Each of the categories is supported by subcategories. For the first category, the subcategories are fluency reinforcement, (b) increase of self-confidence, (c) oral reinforcement of course content, especially for oral examination purposes. For the second category, the subcategories are (a) online intercultural exchange, b) individual attention, and c) immediate feedback.

Excerpts from the participants’ responses and the respective dates of the surveys, focus groups, and researcher’s notes are included below to illustrate the emerging categories and subcategories. Additionally, for validity and reliability purposes, each sample from the participants is triangulated with at least two different data collection instruments. Numbers and not names are used to ensure the anonymity of participants.

In relation to the first research question, it was found that the Skype™ conference calls seemed to help the participants in this research to reinforce their Spanish language skills, especially their speaking skill, outside of the formal language classroom setting. Students also agreed that the calls had reinforced their oral language fluency, lowered their language anxiety and increased their levels of self-confidence in their Spanish language learning process. Finally, learners also agreed that through the Skype™ conference calls, they had been able to orally reinforce course content, especially as a preparation tool for their end-of-semester oral examinations (see Appendix 1 for Oral Examination Rubric). All these benefits can be evidenced and corroborated through the following excerpts, the responses of different learners using different data collection instruments.

**Category: Promoting oral language skills from out-of-class learning environments**

*Siento que he podido a practicar mucho mi español y lo mejor es que estuve muy cómo desde mi dormitorio*

*Excerpt 1. Focus group, student 2, April 9th, 2014, Student’s original words*
Muy buena experiencia porque hablé español el fin de semana desde mi casa con Skype. Me gustó mucho.

Excerpt 2. Survey, student 2, April 9th, 2014, Student’s original words

Me dio la oportunidad de hablar fuera de clase y en un ambiente muy cómodo

Excerpt 3. Student’s reflection journal, student 7, February 22nd, 2014, Student’s original words

**Subcategory: Fluency reinforcement**

I think that the Skype conferences have helped me to speak Spanish a little bit more fluently

Excerpt 4. Focus group, student 9, April 11th, 2014, Student’s original words

Ahora yo puedo hablar más rápido que antes y con cada encuentro yo me siento más fluida también

Excerpt 5. Survey, student 5, April 10th, 2014, Student’s original words

**Subcategory: Increase of self-confidence**

… Skype has helped me gain a certain level of confidence that I did not have before

Excerpt 6. Focus group, student 9, April 11th, 2014, Student’s original words

… Con cada otro encuentro yo me siento con más confianza y no me preocupo mucho como en el pasado porque yo sé que voy a hacer errores, es normal, lo que es importante es mejorar y practicar

Excerpt 7. Student’s reflection journal, student 10, March 29th, 2014, Student’s original words

… Porque Skype me ayudó mucho con mi confianza por hablar español

Excerpt 8. Survey, student 10, April 9th, 2014, Student’s original words

**Subcategory: Oral reinforcement of course content, especially for oral examination purposes**

… It has been very helpful as the lecturer explained to me different ways how I could improve my answers during my oral examinations

Excerpt 9. Focus group, student 1, April 11th, 2014, Student’s original words
… Student 1 affirmed that one of the best things of the Skype™ conference calls is that she can practise and reinforce the same topics that she has studied in class during her seminar and conversation classes.

Excerpt 10. Researcher’s reflective journal, second online session, March 15th, 2014

… Y porque ahora me siento más preparada para el examen oral la próxima semana

Excerpt 11. Student’s reflection journal, student 3, April 5th, 2014,

Student’s original words

In relation to the second research question, it was found that learners used the Skype™ conference calls with the purposes of generating online intercultural exchange with native speakers of Spanish from other countries. Learners also agreed that other considerable advantages of the use of Skype™ conference calls were that they could have individual attention from their teacher during their Spanish language learning process, and receive immediate feedback based on their performance during the online encounters. This is evidenced and corroborated through the following responses of different learners obtained via three different data collection instruments.

Category: Increasing intercultural exchange practices in Spanish language learning

Subcategory: Online intercultural exchange

… Fue una oportunidad de intercambiar ideas de nuestras culturas y fue muy emocionante para mí. La profesora fue muy interesante. Ella le gusta enseñar e intercambiar con otras estudiantes y por eso fue muy bien.

Excerpt 12. Survey, student 6, April 9th, 2014, Student’s original words

… Era muy interesante ese día porque yo pude escuchar otro acento de un hablante nativo de español y conocer más de su cultura y compartir sobre mi cultura también… Muy bueno…

Excerpt 13. Focus group, student 6, April 9th, 2014, Student’s original words
... Me sentí muy contenta porque tuve la oportunidad para escuchar y conocer una persona de Colombia y saber más información sobre el país, la comida, la cultura.

Excerpt 14. Student’s reflection journal, student 3, March 22nd, 2014, Student’s original words

Subcategory: Individual attention
... I was there alone. I thought: “Everything will be focused on you” The time won’t be shared with others.

Excerpt 15. Focus group, student 9, April 11th, 2014, Student’s original words

... Me gusta mucho que no tuve que compartir la hora con otros estudiantes. En clase todo el tiempo no es claro, pero en Skype es uno en uno y puedo hacer mis propias preguntas.

Excerpt 16. Survey, student 4, April 9th, 2014, Student’s original words

Subcategory: Immediate feedback
... Knowing that my lecturer would give me immediate feedback, like: “This wasn’t good; You should have said this; That was one important point or brilliant idea or you did not answer the question. That immediate feedback I value that a whole lot.

Excerpt 17. Focus group, student 9, April 11th, 2014, Student’s original words

... Me gustó mucho que, usted señor, me ayuda para corregir mis errores siempre que los hacía en el mismo momento y yo siempre escribía los errores en mi cuaderno para recordarlos.

Excerpt 18. Survey, student 8, April 9th, 2014, Student’s original words

Conclusions and Recommendations

The analysis and interpretation of data led to the following conclusions:

In response to the first research question, it was found that the Skype™ conference calls might be considered an influential CMC tool in promoting oral language skills from out-of-class learning environments, specifically with respect
to fluency reinforcement, increase of self-confidence and oral reinforcement of course content, especially for oral examination purposes. The students’ impressions, gathered via the different data collection instruments and sources, were also validated by the increase noticed in their final oral examination performance over two semesters. A comparison of participants’ marks for their previous semester (2013-II) and current semester (2014-I) revealed that the research study participants had better scores and overall performance. It was also noticed that the students showed an increase in their self-confidence, which also contributed to lowering their anxiety levels during their oral examinations.

In response to the second research question concerning insights gained, it was found that the Skype™ conference calls might also be considered as a powerful CMC tool in increasing intercultural exchange practices and providing SFL young adult A2 learners with immediate feedback and individual attention in Spanish language learning.

The literature review undertaken for this research study did not reveal previous studies involving the use of Skype™ conference calls in the Caribbean context. This research is valuable, as it suggests that Skype™ conference calls might be usefully incorporated into formal instruction processes not only for language teaching and learning purposes but also for the delivery of other subject matter content across the curriculum in higher education settings. Additionally, the implementation of Skype™ conference calls in the Caribbean context would bring tangible benefits. First, it would be an effective additional way of delivering content, allowing for continued discussion and analysis, as well as feedback to students on homework or unfinished classroom topics. Second, in terms of its cost effectiveness, online encounters can take place in the comfort of home, which means that lecturers and students do not have to spend extra money commuting to their traditional learning and teaching setting. Third, the implementation of Skype™ conference calls will not imply hiring more or fewer teachers, nor an increase in the number of students. On the contrary, it is intended to improve the instruction delivery processes from the teacher’s perspective and to aid knowledge-building experiences for the student through an online environment.

Researchers, teacher-researchers and language practitioners might explore the possible language learning advantages of implementing Skype™ conference
calls in the following areas (in italics) indicated by participants in this research study:

- **vocabulary** – 50 per cent of them experienced some improvement in their Spanish vocabulary
- **listening skills** – 60 per cent of them improved their listening skill through the Skype™ conference calls
- **grammar** – 40 per cent of them improved their grammar a little.

**Notes**

1. A2 or basic users according to the Common European Framework of Reference for Languages
2. Tandem Language Exchange: Launched in Edinburgh in 2007, Tandem is a popular language exchange programme run by EUSA. Tandem is designed to help you meet people and learn languages in a fun, relaxed, social environment without tutors, exams or lectures. Retrieved from: http://www.eusa.ed.ac.uk/global/tandem/
Appendix 1:

**Oral Examination Rubric**

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<th>Span</th>
<th>Pronunciación</th>
<th>Gramática</th>
<th>Vocabulario</th>
<th>Comprensión</th>
<th>Estilo</th>
<th>Total</th>
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<td>3.75</td>
<td>7.5</td>
<td>7.5</td>
<td>3.75</td>
<td>25</td>
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**Temas #**

**Total**

Firma del Alumno: ____________________________

Firma del Profesor: __________________________

Comentarios: ____________________________
Appendix 2:

**Comparative Chart of Students’ Examination Results**

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<td>Student 2</td>
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R eferences

Beltrán, O. C. 2009. The use of Skype™ chat for improving writing skills in an A2 adult learners group. Submitted in fulfillment of the requirements for the degree of Master in English Language Teaching – Autonomous Learning Environments, Universidad de la Sabana, Chía, Colombia.
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