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A Strategic Initiative on Enhancing Postgraduate Throughputs at The UWI St. Augustine Campus

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Abstract: *In the past five years, The University of the West Indies (UWI) has been sustaining a strong growth in postgraduate (PG) enrolments in taught and research programmes. However, the throughput rate of PG could not match with the increase in PG enrolment in both relative and absolute terms. The UWI's Strategic Plan 2012-2017 centres around six (6) integrated Perspectives. One of the three strategic goals under the Research and Innovation (R&I) perspective is to 'enhance graduate studies and increase postgraduate research output'. In such context, this paper reviews the key areas of priority for the Campus for the period 2014-2017, and informs the strategic initiative with a proposed Throughput Enhancement Project (TEP) at The UWI St Augustine Campus. It then presents the structure of TEP and a schedule of its implementation. For facilitating the TEP initiative, project leaders and process owners are identified, and resource requirements versus savings are explored. The paper concludes by discussing the evaluation of the TEP efficacy in relation to achieving the R&I strategic goals of The UWI.*

Keywords: *Graduate intakes, throughputs, enrollment, postgraduate programmes, university*

1. Introduction

The University of the West Indies (UWI) was established in 1948 as a University College of the University of London becoming an independent university in 1962. UWI has four Campuses: Mona (Jamaica), St Augustine (T&T), Cave Hill (Barbados) and Open Campus, and has been supported financially by 16 countries in the Caribbean. It has an enrolment of some 50,000 students in 2013/2014, and graduates some 10,000 per annum. The UWI Mission Statement is "to advance education and create knowledge through excellence in teaching, research, innovation, public service, intellectual leadership and outreach in order to support the inclusive (social, economic, political, cultural, environmental) development of the Caribbean region and beyond" (UWI, 2014).

At The UWI St Augustine Campus, research and teaching influence each other in a symbiotic way. Outlining a robust research mandate, providing a supportive environment for creativity and innovation, and facilitating effective knowledge transfer can only serve to complement and enrich the teaching and learning experience for students both at the undergraduate (UG) and postgraduate (PG) levels. In the past five years, The UWI St Augustine Campus has been sustaining a strong growth in postgraduate (PG) enrolments in taught and research programmes. However, the throughput rate of PG could not match with the increase in PG enrolment in both relative and absolute terms (Pun, 2014a, 2014b).

Improving throughput means different things to different people. For instance, there is a view that improving throughput can be adequately achieved by measures that do not require changes in current teaching-and learning practices, such as reformulating admissions policy to exclude disadvantaged students, or various manipulations of performance data. The cynical view is sometimes expressed that higher throughput targets can be met simply by lowering academic standards (UCT, 2012; Pun 2014c). This paper discusses the challenges of and explores the need on improving the PG throughputs. An initiative on enhancing PG throughputs is proposed in relation to achieving the strategic goals of research and innovation (R&I) of The UWI.

2. The UWI's Strategic Goals and SGSR

The University's Strategic Plan 2012-2017 centres around six (6) integrated Perspectives. One of them is 'Research and Innovation' that stresses three (3) strategic goals: 1) to create an enabling environment to support, foster and increase the output of high quality research and innovation, 2) to enhance graduate studies and increase postgraduate research output, and 3) to increase funding and strengthen research partnership (UWI, 2014). Table 1 depicts the associated sub-objectives of respective goals under the 'Research and Innovation' perspective. These strategic goals and associated sub-objectives are in nature interrelated.

At The UWI St Augustine Campus, The School for Graduate Studies and Research (SGSR) is an operational entity within the university context and has been providing administrative services to various faculties, departments and teaching units (such as Schools, Institutes, Centres, and the like) on all kinds of matters

Table 1. Associated Sub-objectives of University Strategic Goals

Strategic goals	Strategic objectives
Faculty-led research and innovation	1) Develop and implement supportive policies, processes and incentives for research; 2) Promote research accomplishments locally and internationally; 3) Increase the number of peer-reviewed publications and citations, and 4) Develop market products based upon cutting-edge research.
Graduate Studies and Research	1) Increase enrolment of full-time graduate research students; 2) Improve throughput of research students; 3) Strengthen supervision and other support systems and policies, and 4) Establish and implement mechanisms for measuring output and disseminating student research.
Increasing funding and strengthening research partnerships	1) Rationalise and enhance support for the development of research proposals, implementation and management of research grants; 2) Explore and increase donor funding for research and innovation, and 3) Expand the range of strategic private and public sector partnerships, locally, regionally and internationally.

Source: UWI (2014)

related to graduate studies and research. It has been working with the Office of the Graduate Studies and Research (OGSR) towards aligning the core activities with the university's strategic initiatives, as related specifically to the responsibilities of the unit, with recruitment, enrolment and throughput being prime targets (Pun, 2013).

Under the auspices of the Campus Principal and the Campus Registrar as well as the support from both the Campus Committee for Graduate Studies and Research (CCGSR) and the Campus Research and Publication Fund (CR&P) Committee, the SGSR and OGSR have been in 2012-2014:

1) Providing administrative support to the increasing enrolments of graduate students;
2) Facilitating the review and approval of new programmes proposed; and
3) Facilitating the approval and provision of financial support to staff members and students engaging in research.

The SGSR had identified several key priorities while working with academic faculties and units across campus. Among others, two priorities are to expand the enrolment of full-time graduate research students, and to improve throughputs of research students.

3. Mismatch of PG Enrolments versus Throughputs

The UWI St Augustine campus has been sustaining a strong growth in PG enrolments with good joint efforts from faculties and supporting units in designing and promoting suitable programmes that meet the study needs of current and prospective students. There has been a continuous trend of increase in the graduate applications for admissions, and enrolments in both taught and research graduate students over the past years. Statistics show that there were some 6,205 enrolments of new and returning graduate students among faculties in 2013/14 as compared to 4,991 in 2012/13 (see Table 2).

Table 3 shows a comparison of distribution of graduate enrolments from 2008/09 to 2013/14, with an attempt to separate the enrolments between taught and research programmes at the St Augustine campus. Students enrolled in the Taught PG/Masters programmes made up about 85.4% of the graduate population (i.e., some 5,301 students) among various faculties in 2013/2014. The rest, i.e., 904 MPhil/PhD students were being enrolled in 2013/14. As compared with that of 2012/13, there was a growth of 16.6% for research programmes and 25.7% for taught programmes, respectively (Pun, 2014b). It shows a significant growth of 24.3% on total enrolments, representing a growth of 25.7% for taught programmes and16.6% for research programmes, respectively (Pun, 2014b, 2014c).

Table 2. Enrolments of New and Returning Graduate Students Amongst Faculties, 2008/09 - 2013/14

Faculty (including Centres)	2008/09	2009/10	2010/11	2011/12	2012/13	**2013/14***
Engineering	873	848	907	1,023	1,005	1,248
Food and Agriculture	n.a.	n.a.	n.a.	0	184	254
Gender and Dev Studies	0	17	22	19	28	29
Humanities and Education	585	744	843	858	872	1,038
Medical Sciences	283	263	337	373	399	500
Science and Agriculture	362	421	505	558	0	0
Science and Technology +	n.a.	n.a.	n.a.	2	420	553
Seismic Research Centre	0	0	3	2	2	4
Social Sciences	1,372	1,442	1,757	2,057	2,081	2,579
TOTAL	**3,475**	**3,735**	**4,374**	**4,892**	**4,991**	**6,205**

Remarks: * - Available figures as at May 20th, 2014; n.a. – not available

\+ - The University took the decision to separate the Faculty of Science and Agriculture into two new Faculties: Food and Agriculture, and Science and Technology, starting from August 2012.

Table 3. Distribution of Taught and Research Graduate Students Enrolled at UWI, St Augustine 2008/09 to 2013/14

Graduate Students	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14***	% Growth in 2013/14 compared with 2012/13
Research	802	645	722	766	775	904	16.6%
Taught	2,845	3,171	3,652	4,126	4,218	5,301	25.7%
Total:	**3,647**	**3,816**	**4,374**	**4,892**	**4,991**	**6,205**	**24.3%**

Remarks: * - Available figures as at 20 May, 2014.

Table 4. Graduands of Taught Masters and PG Diplomas by Faculties, 2008/09 - 2013/14

Faculty	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14***
Engineering	138	165	163	167	175	194
Food and Agriculture	n.a.	n.a.	n.a.	n.a.	22	28
Humanities and Education	182	155	375	314	360	383
Medical Sciences	49	18	99	86	116	116
Science and Agriculture	11	33	58	60	0	0
Science and Technology	n.a.	n.a.	n.a.	n.a.	67	73
Social Sciences	330	381	376	417	522	515
Total:	**710**	**752**	**1,071**	**1,044**	**1,262**	**1,332**

Remarks: ** - Available figures at November1st, 2014; n.a. – Not available.*

Despite an increase in the enrolment of graduate research students being positive in the anticipated track since 2009/10, the throughput rate of PG students (in both taught and research programmes) has still been lagging behind. For 2013/2014, a total of 1,332 awards of Masters, Certificates and Diplomas were granted to PG graduands. The figure of 2012/13 was 1,262 (see Table 4). Besides, 46 MPhil/PhD graduands were produced in 2013/2014. There has been a 5.65% increase in the numbers of PG graduands from 1,262 in 2012/2013 to 1,332 in 2013/2014. Nevertheless, the growth of PG throughputs could not match with the increase in PG enrolment in both relative and absolute terms. There has been a gap between student enrolments and student throughputs.

There have been many factors and/or causes attributing to the mismatch of PG enrolments versus throughputs over the years. The increase in PG enrolment would imply that there would have increased the demand on teaching, human and institutional resources at various fronts. Many faculties, department and academic units would have been encountering serious constraints in utilising and expanding their teaching, human and institutional resources (including assignment/allocation of teaching versus student supervision responsibilities to faculty members, the provision of infrastructural (classroom, laboratory) supports, and the increase/improvement in student/administrative services, etc). In other words, this would certainly add further burden on the existing capability in respective faculties, department and academic units (Pun, 2014a).

The persistence of unsatisfactory throughput indicates that the challenge is substantial at St Augustine Campus. How to close/narrow the throughput gap and enhance the throughput rate of PG programmes had been recognised as one of the top priorities among others for the University to address, particularly the taught programmes which attributed to majority of PG student population.

4. Needs for Enhancing PG Throughputs

At UWI St Augustine Campus, most of the existing PG taught Master's have research papers/projects components (particularly those individual projects/papers) and require structured and/or intense supervision. Difficulties in finding/assigning supervisors and over-burdening the existing supervisors have been the problems that affected adversely the PG throughputs. Moreover, supervision of these research papers/projects (particularly those individual ones) would be very resource-demanded in terms of supervisors' (faculty members') time. There is also a pressing need to refine and expand the design and delivery of many PG taught programmes so as to meet flexibly the changing needs from stakeholders (including the students, the employers/industry/government, and the accreditation bodies, etc).

From the students' prospective, as shared from many PG students, they claimed that lacking of sufficient research motivation and supervisor guidance (or supervision) would affect significantly their studies and throughputs at St Augustine Campus. However, one major bottleneck was to fulfill the requirement of undertaking a research project/paper/practicum before they could graduate in respective taught PG Master's programmes being offered at the St Augustine Campus. Statistics show that many students had stayed in the system for one reason and another. However, a great large number could not manage in completing the research project/paper/practicum in the designated timeline despite that they could have completed all their taught courses for graduation. As a consequence, many students would have been staying in the system for many

years. Most of these PG students have their commitments from work and family and/or other personal goals. In some cases, it seemed that there have no ways out for them to complete the research project/paper/practicum component (Pun, 2014a, 2014c).

5. A Throughput Enhancement Project/Initiative

In May-June 2014, a working group of Research and Innovation and Graduate Studies (RIGS) reviewed the decisions taken at the Campus Management Retreat in May 2014, on the key areas of priority for the Campus for the period 2014-2017. The group had recognised the pressing need to improving throughput, and recommended that such improvements must not take precedence over equity of access and outcomes. Enhancing the throughput rate would stress the improvement in the effectiveness of the teaching and learning process for the diverse student body, and there would be no compromising standards (Pun, 2014a).

5.1 The TEP Proposal

The RIGS group initiated a draft proposal of 'Throughput Enhancement Project' (TEP) for Taught PG Programme. The project explored the possibility of restructuring the design of some postgraduate (such as taught Master's) programmes that would allow students to opt to taking more taught courses in lieu of the credit requirements of research project/papers in respective programmes.

The credit requirements of a taught Master's programme vary from one faculty to another faculty and from one department to another department. For instance, for a typical 45-credit programme, it would normally comprise of taught courses (i.e., 33-36 credits) and a research project/paper/practicum (i.e., 9-12 credits). Under the proposed TEP, a PG student enrolled in the said programme would be allowed to take a special option of obtaining 9-12 credits from the enrolment of additional 3-4 courses in lieu of the credit requirements of research project/paper, subject to the recommendations from the programme coordinator and approval from the Head of Department as well as the availability of additional courses being offered in respective programme.

The Faculty/Department is to assume the responsibility of 1) assessing the eligibility/suitability of students to take this option and 2) assuring the availability of additional courses that are relevant to the discipline and/or specialised/associated subject areas of respective programme that the student is being enrolled.

Moreover, several key performance indicators are identified to determine quantitative/qualitative impact of the TEP initiative (Pun, 2014c). These are 1) the number of PG programmes revised/modified to meet the students' and stakeholders' needs, 2) the increase in the number of graduands per programme and per academic year, and 3) the increase in staff members' teaching and research productivity (in terms of number of students supervised successfully, and number of research publications generated, etc).

4.2 Structure of TEP

The TEP is to be designed as a campus-wide improvement initiative (Pun, 2014c). The focal area of the project is to allow individual faculties, departments and academic units to modify, revise and/or refine the design, offer and delivery of their existing PG courses and programmes that suit better for the needs of the students and stakeholders, in line with the existing university's regulations and guidelines. Individual faculties, departments, institutes, academic /research centres, and units, are responsible for the revision, implementation, monitoring and maintenance of their TEP initiative and associated programmes at their levels (via their own coordinator(s)), and also to update the progress and accomplishments of respective initiatives to respective faculties and the SGSR/OGSR.

There has been a structured route of responsibilities in relation to the implementation of the proposed TEP project. It is anticipated that individual departments, institutes, academic /research centres, units and the like, would 1) identify the PG courses and programmes to be enhanced and prepare their own 'TEP Implementation Plans' for the proposed changes and revisions, and 2) appoint their own coordinator(s) or a designated person(s), (being their project manager) to coordinate the implementation. Any revisions and/or changes in PG courses and programmes could be submitted separately via the Faculty, or be incorporated into the 'TEP Implementation Plan' of their respective faculty, for possible consideration and approval from the Board for Graduate Studies and Research (BGSR). Similarly, it is expected that individual faculties would appoint their own coordinator(s)/project manager(s) (such as the Deputy Deans, GSR) to coordinate the implementation of any revisions and/or changes of respective PG courses and programmes at the faculty level.

4.3 Schedule of TEP Implementation

The TEP Implementation Plans in respective faculties would be consolidated and then absorbed into the TEP Implementation Plan for the Campus. In essence, the revision(s) and change(s) of relevant programmes would be undergone through the normal submissions to the Board for Graduate Studies for approvals via the respective Faculty Boards and the CCGSR. The SGSR and OGSR would facilitate the approval process in a timely manner with respect to the scheduled meetings of the BGSR.

Upon approval, the actual implementation of modified PG programmes would fall under the responsibilities of individual faculties, departments, institutes, academic/research centres, and units. The Deans of respective faculties and the Heads or Directors

of respective departments, school, institutes, centres and/or units are to assume the role as the project leaders. The Campus Coordinator of GSR is to assume the role as the project manager responsible for overseeing the coordination/ implementation of TEP initiative and associated programmes that are proposed, developed and consolidated at the campus level. Therefore, the Campus Coordinator GSR (and extending to SGSR/OGSR and CCGSR) is to provide facilitative supports on the issues and matters associated with TEP.

The TEP initiative is on-going in nature, and its implementation could adopt the 'Plan-Do-Check-Act' cycle (Pun, 2014c). Individual component of the cycle would take 6-9 months to complete. It is expected that each cycle would span for 2-3 academic years. In other words, the first cycle would start from 2014-2015 and then end by 2016-2017. Nevertheless, the pace of TEP implementation in individual faculties, departments, institutes, and other academic /research centres may vary.

4.4 Project Leaders and Process Owners

Individual faculties, departments, institutes, academic/ research centres, and units, would be responsible for the revision, implementation, monitoring and maintenance of their TEP initiatives at their levels, via their own coordinator(s) who are to assume the role of process owners and update the progress and accomplishments of respective initiatives to the Campus Coordinator GSR. The Deans of respective faculties and the Heads or Directors of respective departments, school, institutes, centres and/or units would be to assume the role of project leaders.

The Campus Coordinator of GSR (and extending to SGSR/OSGR and CCGSR) would provide facilitative supports on the coordination/ implementation of TEP initiative and associated programmes that are proposed, developed and consolidated at the campus level. In other words, this is a partnership relationship between SGSR and faculties/departments/units in 1) preparing the TEP Implementation Plans at various levels (i.e., Campus, Faculty, and Departments/ Institutes/ Units), 2) fostering the execution of TEP initiative and programmes in these plans, and 3) monitoring and measuring the performance of respective TEP initiative and programmes at various levels (Pun, 2014a).

4.5 Resource Requirements versus Savings

Any programme refinements, changes and expansions should have resource implications in terms of the support/provision of proper institutional and departmental (including infrastructural and administrative) supports across various faculties and departments on campus. It is proposed that individual faculties, departments, institutes, academic/research centres, units and the like, would be responsible for working out their budget for resource requirements (e.g., human, infrastructural, etc). Nevertheless, the resource savings from undertaking the TEP initiative would be substantial as a result of enhanced throughput rates, in terms of better utilisation of existing human and infrastructural resources at individual faculties and departments/institutes/units.

The SGSR/OGSR would work closely with Faculties, and Departments/ Institutes/ Units on this venture. Hence, resource requirements at both SGSR and OGSR would be absorbed in their annual operational budgets for the coming years.

5. Discussions and Conclusion

Recent research in educational development suggests that many factors affecting students' throughput rates. These include flexible curriculum structures, encouraging student engagement through varied learning opportunities and a range of teaching styles, curriculum alignment, the embedding of academic literacies in curricula, enhanced effective support and social connectedness, as well as staff and tutor development (Biggs and Tang, 2009; Lubben et al., 2010; UCT, 2012; Pun, 2014c). It has been argued that student learning could be improved through concerted action that would foster the teaching and learning process.

Providing a supportive environment for creativity and innovation, and facilitating effective knowledge transfer can only serve to complement and enrich the teaching and learning experience for students both at the undergraduate and postgraduate levels. This paper focuses on addressing the issues associated with improving the throughputs of taught Master's programmes, and explores the introduction of the proposed TEP project at St Augustine Campus for the academic year of 2014-2017 aligning the current University's Strategic Plan.

There is evidence internationally, for instance, some Commonwealth Universities (e.g., City University of Hong Kong and The Hong Kong Polytechnic University) had since the mid-1990s undertaken similar projects as TEP. The successful experiences shared that a majority of students (i.e., some 70-90%) enrolled in their taught PG/Master's programmes would have completed their studies by taking extra credits in relevant/practical courses in lieu of undertaking the research project/paper component. The remaining 10-30% of students who were of the research abilities would have been channeled to take the research project/paper option to complete their studies (CityUHK, 2014; HKPolyU, 2014). As a result, these projects had significantly enhanced the throughput rates of students enrolled in their taught PG/Master's programmes and also strengthened strategically both teaching and research productivity of faculty members who would have engaged in teaching courses and supervising students in these programmes.

Drawn from the successful experience/lessons from abroad, it is anticipated that as a substantial amount of PG students at St Augustine would likely opt to taking

extra courses to complete their studies. The saving of faculty members' time on supervising students would be huge as compared to the situation where students need to complete their respective research projects/papers/ practicums to graduate. Besides, faculty members who engage in teaching courses and supervising students in these programmes could improve their teaching efficiency and effectiveness and foster their research productivity.

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