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## Translating Equitable Access into Retention and Success in African Higher Education: The Role and Responsibility of Individual Institutions

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### Abstract

Matching equity of access to equity of outcome in marginalized groups in African higher education necessitates innovative strategies in pre- and post-student admission. Student selection using tools predictive of student success, comprehensive and holistic student support, and, curriculum and pedagogical interventions address both access and success within the equity and transformation paradigms. This article provides an overview of higher education participation rates in African countries and describes curriculum, pedagogic and student support strategies that facilitate the translation of access into retention and success.

### Résumé

L'accès à l'égalité des résultats dans les groupes marginalisés au sein de l'enseignement supérieur en Afrique nécessite des stratégies innovatrices pré et post-admission des étudiants. La sélection utilise des outils prédictifs de réussite, de soutien exhaustif et global des étudiants, des programmes et des interventions pédagogiques traitant, selon des modèles équitables de changement, l'accès et la réussite en même temps. Ce document donne un aperçu de la hausse des taux de participation à l'éducation dans les pays africains, et décrit des programmes et des stratégies pédagogiques de soutien des étudiants qui permettent de traduire l'accès à l'éducation en stabilité et réussite.

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### **Introduction**

The African Union (AU) and NEPAD have both explicitly prioritized education as the vehicle for Africa's development. The AU (2006a) has identified human resources development by 'education' as the major means of attaining its vision of an integrated, peaceful, prosperous Africa, driven by Africans and affirming its place in the knowledge economy and global community. The plan of action for the 'Second Decade of Education for Africa' prioritizes 'tertiary education' as one of its seven foci, i.e., the 'complete revitalization of higher education, with the emergence of strong and vibrant institutions profoundly engaged in fundamental and development-oriented research, teaching, community outreach and enrichment services to the lower levels of education; and functioning in an environment of academic freedom and institutional autonomy, within and overall framework of public accountability' (AU 2006a:1). This focus is echoed in the AU's (2006b) Priority Programme 19 (Priority Education) which has the objectives of socio-economic development by partnering with youth for the promotion of human resource development, capacity development and science and technology as tools. The AU (2004) also quotes education in the context of the Millennium Development Goals where the goal of promoting gender equality and empowerment of women has as its success indicators the elimination of gender disparity in primary and secondary education preferably by 2005 and in all levels of education no later than 2015. One of the goals of NEPAD<sup>3</sup> is 'policy reform and increased investment in human development with a focus on health, education, science and technology development'. If higher education is believed to be critical to the resolution of the complex challenges facing the African continent (Council for Higher Education 2004a), then areas for priority attention are participation rates, access, retention and success in higher education.

### **Participation**

Participation is defined as the proportion of the total population of the relevant age cohort enrolled for education and is often stratified by different categories of people who access education. Participation at all levels of education in sub-Saharan Africa is not only the lowest globally, but is also gender-biased in favour of males, as evident in Table 1 extracted from the 'Education for All Global Monitoring Report' 2009. Of particular relevance to this article is the weighted average of people accessing secondary and tertiary education which is cited as 32 per cent and 5 per cent in 2005 respectively.<sup>4</sup> Even greater disparity exists when the participation rates are stratified by gender, with the weighted average of women in higher education cited as a little more than a third (UNESCO 2008).

Table 1: Participation Rates in Sub-Saharan Africa

		Gross Enrolment Rates (GERs) - %			Gender Parity Indices (GPIs)		
		Weighted Average	Maximum	Minimum	Weighted Average	Maximum	Minimum
Pre-primary education	GER/GPI	14	109	0.8	0.97	1.79	0.49
	Year	2006	2006	2005	2006	2006	2005
	Country	All <sup>1</sup>	Seychelles	Chad	All <sup>1</sup>	Lesotho	Chad
Primary Education	GER/GPI	97	138	47	0.89	1.06	0.66
	Year	2005	2005	2005	2005	2004	2005 (UIS estimate)
	Country	All <sup>2</sup>	Madagascar	Niger	All <sup>2</sup>	Gambia	Central African Republic
Secondary Education	GER/GPI	32	105	9	0.79	1.26	0.33
	Year	2005	2005	2005	2005	2005	2005
	Country	All <sup>2</sup>	Seychelles	Niger	All <sup>2</sup>	Lesotho	Chad
Tertiary Education	GER/GPI	5	17	0.4	0.62	1.27	0.15
	Year	2005	2005	2004	2005	2005	2004
	Country	All <sup>2</sup>	Mauritius	Malawi	All <sup>2</sup>	Lesotho	Eretria

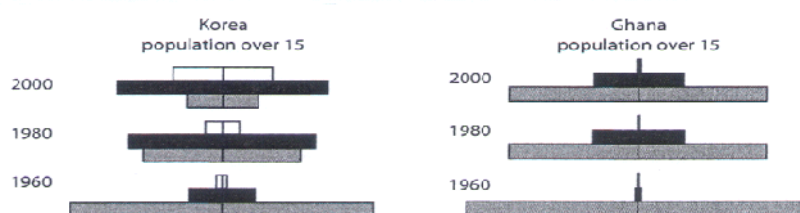
These rates have not changed significantly over the last 40 years, as reflected in Figure 1, where participation in higher education in Ghana is compared with that of Korea. Interventions to increase participation rates thus require comprehensive engagement with the cultural, educational, political, religious, socio-economic and tribal issues that impact on participation in formalized education.

### Access

Access to higher education has progressed from a paradigm of inherited merit, where a select group of academically proficient students were admitted into higher education institutions solely on merit, inherited as a result of their socio-economic and educational backgrounds. Currently, national goals tend to aspire to equal rights where demographic, economic, political and ideological imperatives resulted in the massification of higher education such that it became

representative of national diversity and was made accessible to large numbers of the population, irrespective of socio-economic and educational status. Ultimately the goal is equity or equality of opportunity which aspires to equal opportunity of access to a variety of academic fields and disciplines and to postgraduate education by redefining merit and augmenting it with various forms of alternative access (Clancy and Goastellec 2007 and Council for Higher Education 2004b). Equity of access thus relates to an institution's initiatives in making the full complement of its educational offerings accessible to a diversity of students, particularly marginalized groups (Council for Higher Education 2004a).

Figure 1: Change in Educational Profile in Korea and Ghana, 1960-2000  
(Bank 2009)



Key: Grey=Primary Education, Black=Secondary Education, White=Higher Education.

Although the definition of 'marginalized' and the prioritization of marginalized cohorts (where more than one exist) varies from country to country, the definition usually encompasses one or more of the following:

- Gender: gender bias against women, especially in certain fields of study.
- Geography: students from peri-urban and rural areas.
- Education: poor quality of the secondary education experience and the subsequent level of preparedness for higher education.
- Economic status: less affluent students with limited ability/inability to self-fund/co-fund higher education.
- Language: students with a mother tongue different from that used in the Higher Education institutions.
- Minority/race/ethnicity: minorities, races or ethnic groups marginalized by political regimes (Jones et al. 2008 and Waetjen 2006).

Matching equity of access to equity of outcome by successful participation and completion necessitates a number of pivotal, holistic and innovative strategies pre- and post-student admission.

### **Pre-Admission Strategies**

Pre-admission strategies largely relate to student selection using tools predictive of student success.

#### *Selection*

Merit-based student selection for marginalized groups whether considering performance at secondary school level or in merit-based selection tests such as the traditional intellectual assessments and aptitude tests, has engendered world-wide criticism. Widening access to marginalized groups has thus involved a range of student selection tools, inter alia developing flexible entry requirements, assessments for the recognition of prior learning, and programme-specific admissions tests and alternative admissions tests (Council for Higher Education, 2004a). Many of these tests have been extended from a purely quantitative exercise to personal interviews and psychological profiling, for example, and many have been augmented by broader criteria such as a student's rank rather than performance in school as an indicator of ability. Others use proxy indicators such as attitude, commitment to learning, leadership qualities, motivation, personality and psychological self-efficacy (Jones et al. 2008; Coughlan 2006 and McLaughlin et al. 2007) as evidenced by the following selected case studies of aptitude tests, interactive assessments and psychological profiling.

The Alternative Access Research Project (AARP) developed by the University of Cape Town in South Africa consists of a battery of admissions tests with the aim of identifying academically talented students with the potential to succeed. The battery has six components: the academic and quantitative literacy test, the mathematics test, the placement test in English for educational purposes (PTEEP), the mathematics comprehension test, the mathematics achievement test and the reasoning test.<sup>5</sup> Visser and Hanslo (2005) reported on different statistical methods employed to relate AARP tests scores to performance and retention. The project initially used correlations and regression analyses relating AARP test scores to student performance largely at first year level (decreasing sample sizes in subsequent years precluded the use of these statistical methods which were further confounded by academic development programmes and course interventions), to survival analyses relating AARP test scores to outcome whether completion, graduation, academic exclusion or drop-out using parameters such as the survival function which is the probability that a student will remain longer than the minimum time for a particular programmes, and the hazard function which is the probability that a student is excluded at a particular time. The PTEEP test which consists of a combination of multiple choice questions and productive pieces, including aspects of teaching, modelling and practice, was found to provide additional information regarding the risk of

exclusion/drop-out only amongst marginalized cohorts of students with similar secondary education examination performances.

Shochet (1994) contended that sub-optimal performance of marginalized students in intellectual assessments or aptitude tests was attributed to minimal exposure to mediated learning experiences and that a true reflection of learning potential was attainable by an interactive assessment model or the 'test-teach-re-test' method where students are actively coached or subjected to mediated learning during test administration. His research conducted at the University of Natal (now KwaZulu-Natal) in South Africa showed an inverse relationship between cognitive modifiability and predictability of intellectual assessments or aptitude tests, ultimately advocating cognitive modifiability as a moderator of a traditional predictors and not necessarily predictive of success (Shochet 1994).

McLaughlin et al. (2007) in a study conducted amongst nursing students at a University in the United Kingdom, related academic performance to a questionnaire-based evaluation of occupational and academic self-efficacy as well as personality and ascertained extraversion (characterized by sensation seeking, assertiveness, sociability and requiring constant stimulation), neuroticism (characterized by low self-esteem, depression, shyness, moodiness and anxiety) and psychoticism (characterized by aggressiveness, tough-mindedness, apathy, impulsiveness and recklessness), believed to be partially hereditary and partially physiological amongst a first year cohort of nursing students. It was found that psychoticism and extraversion were negatively associated with academic performance while occupational self-efficacy related to motivation and learning was statistically significantly positively associated with academic performance.

Despite the fact that most, if not all alternative access mechanisms, whether quantitative or qualitative have met with mixed success, showing limited predictive value in marginalized student cohorts, they nevertheless provide an important body of work facilitating the access of marginalized students. While research to optimize alternative access criteria is ongoing, it is imperative that institutions acknowledge that alternative access mechanisms inherently assess learning potential and the potential to succeed on the express proviso of the availability and accessibility to adequate and appropriate academic and other support.

### **Post-Admission Strategies**

Equity of outcome may be achieved by implementing a number of pivotal, holistic and innovative post-admission strategies. These include curriculum interventions such as separate or bridging, semi-integrated or foundational and holistic and integrated models together with contextualized and relevant curriculum content as evident in competency-based education (CBE), outcomes-based education (OBE) and cased-based curricula (CBC). Other approaches include participative pedagogies such as peer-led team learning (PLTL) and

problem-based learning (PBL) in tandem with additional academic support by, for example, supplemental instruction (SI) and structured learning assistance (SLA) and psycho-social student support by means of mentorship, student counselling centres and a range of other student services.

### *Curriculum*

Curriculum intervention is aimed at adapting curricula to assist in developing a student's general academic and cognitive skills, language proficiency and capacity for self-directed learning (Council for Higher Education 2004a) by providing contextualized and relevant curriculum content and by ensuring relevant learning outcomes commensurate with international reference points<sup>6</sup> developed in consultation with stakeholders including but not limited to faculty, students, alumni, employers, government ministries, private and public national and international higher education institutions, consultants and specialists, mentors and coaches, assessors and moderators, higher education quality assurance bodies, professional bodies, advisory bodies, research institutions and the broader society (Meyer and Bushney 2008). The graduate is ideally an intellectual, a professional and a critical citizen able to think theoretically, analyze rigorously and process empirical data with a deep social commitment to addressing the developmental needs of Africa (Badat 2005). This learner-centredness requires curriculum design and content relevant and contextual to the learners' life experiences and the use of appropriate teaching, learning and assessment methodologies (Koch et al. 2001 and Venter et al. 2001). Curriculum intervention thus focuses on curriculum design, content, pedagogy.

Curriculum design to facilitate the retention and success of marginalized students has progressed from a 'more time more tuition' separate or bridging approach and semi-integrated or foundational approach, to the integrated and holistic approach (Crosling et al. 2009 and Kloot et al. 2008). Separate or bridging approaches provide academic support and aim to improve an inadequate secondary education. Semi-integrated or foundational approaches additionally provide academic development laying the necessary foundations for further study by developing cognitive, communication and study skills, while the integrated and holistic approach integrates academic development in mainstream programmes instilling cognitive, practical, reasoning and thinking, and, conceptual, critical thinking, language, communication, life and study skills through disciplinary content (Kloot et al. 2008). Horizontal and vertical integration are essential components of curriculum design with the former encompassing the contextualization of academic and life skills within a disciplinary field and relating cognate disciplines as opposed to teaching in silos while the latter involves the convergence of academic development with mainstream curricula (Jones et al. 2008). While holistic integrated approaches may be best practice,

circumventing the stigmatization of marginalized cohorts, separate and semi-integrated approaches are useful preliminary interventions allowing natural progression to holistic and integrated approaches.

It is imperative that the curriculum content discourse in African higher education, in terms of relevance and context, focuses on indigenous knowledge defined as 'an idea or system of thought peculiar to the [inhabitants] of a particular geographical location of socio-cultural environment' (Le Grange 2008:817). Le Grange (2008) contends that although knowledge systems differ in epistemology, pedagogy, logic, cognitive structures, socio-economic and socio-cultural contexts, all systems inherently share 'localness' and their own knowledge space/place.

Africanization 'relates to Africans upholding African aspirations; descent; cultural heritage; own ideas, rights, interests and ideals; self-concept and own rationality in intercultural context' (Botha 2007:205) as well as non-Africans respecting and facilitating Africans' efforts to do so. Africanization in the University context necessitates the relevance of African universities to Africa by promoting unique African philosophies and organizational cultures, by addressing the needs and expectations of developing, largely third-world African countries and by focusing on the needs, circumstances and aspirations of Africans; in essence relating to the continent, philosophy, culture, countries and people of Africa (Botha 2007).

Notwithstanding the importance of including the African and non-African international components (Botha 2007), the generation and dissemination of indigenous knowledge in African higher education is critical to addressing the challenges of Africa as is the shift from 'pure disciplinary, homogenous, expert-led, supply driven, hierarchical, peer-reviewed and [largely] university based' knowledge to 'applied, problem-centred, trans-disciplinary, heterogeneous, hybrid, demand-driven, entrepreneurial and network-embedded' knowledge (Le Grange 2008:821).

### *Pedagogy*

The delivery of contextualized curricula with integrated academic development requires a shift from the traditional concept of knowledge as a product delivery system transmitted by the lecturer/teacher imparting factual, discipline-oriented information with necessary guidance on assessment but which results in minimalist learning and no opportunity for exploration and problem solving (Venter 2001) to interactive pedagogies based on the connectivism and constructivism learning theories, both of which create 'rich environments for active learning (REALs)' (Kilfoil 2008:1023).

Connectivism explains the dynamics of networks, environments and ecologies related to accretion which defines learning as a continuous embedded



function of the environment and at the point of need (real life). Connectivism is based on the principles that learning and knowledge lie in a variety of diverse opinions, that learning is a process of connecting specialized information sources, that the capacity to know where to source knowledge is superior to knowing 'what' and 'how', that nurturing and sustaining connections is critical to continual learning, that the ability to connect diverse disciplinary fields, ideas and concepts is a fundamental skill, that the acquisition and/or construction of current cutting edge knowledge is the central tenet, and, that decision-making is in itself a learning process. Similarly, constructivism promotes learning and investigation within authentic contexts, fosters the development of student responsibility, initiative, decision-making and intentional learning, engenders collaboration amongst students and faculty, uses dynamic, interdisciplinary, generative learning activities that facilitate critical thinking processes to assist students to develop comprehensive and complex knowledge structures, and evaluates student progress in content and learning skills within authentic contexts using real life examples (Kilfoil 2008). The student is 'an active participant in the learning process constructing knowledge through social interaction, negotiation and cooperation' (Dlodlo and Beyers 2009:427). Personal experiences of students enrich learning and facilitate the construction of individual knowledge while engendering problem solving abilities, a positive attitude to learning, greater self-esteem, greater confidence to attempt new and cognitively-demanding tasks, an appreciation for socio-cultural differences and inculcating teamwork skills such as listening, encouragement, empathy and conflict resolution (Dlodlo and Beyers 2009).

Integral to connectivism and constructivism are collaborative learning, cooperative learning and learning communities as evident in pedagogies including, but not limited to supplemental instruction (SI), structured learning assistance (SLA) and accelerated learning groups (ALGs), which are adjunct, and the emerging scholars programme (ESP), video-based supplemental instruction (VSI) and peer-led team learning (PLTL) which are embedded (Arendale 2005).

SI facilitates the mastery of content in the process of developing and integrating learning and study skills in high risk courses and aims to improve student performance, retention and completion/graduation rates (Arendale 2005). SI is peer-assisted study sessions which are regularly-scheduled, informal review sessions where students compare notes, discuss readings, develop organizational tools, and predict test items. Sessions are facilitated by SI leaders who are students who have previously done well in the course and who attend all lectures, take notes, and act as model students. There is no remedial stigma attached to SI as it is a voluntary, non-remedial approach to learning targeting high-risk courses rather than high-risk students in which students with varying levels of academic preparedness and diverse socio-cultural

backgrounds participate.<sup>7</sup> SLA assists students in developing the basis required to engage with the course content and to develop and apply the learning strategies most suited to the content. This also focuses on high risk courses and it is usually mandatory for all students to attend until mastery is demonstrated by high marks in examinations (Arendale 2005). Learning strategies such as note taking, listening, study habits and test taking are skills inculcated in addition content mastery. SLA is mediated by facilitators who act as role models to engender student responsibility and commitment to tasks.<sup>8</sup> ALGs are designed to meet the needs of students with significant skill and knowledge deficiencies that preclude participation in SI or SLA. An individual education plan is combined with peer-led small group learning activities and formative assessment by a learning skills specialist. Adequate progress in ALGs allows progression to SI or SLA.

ESP builds a cohort community of first-year students from marginalized groups that are academically oriented and can serve as a source of peer support. The cohort is provided with extensive orientation and academic mentorship while their academic progress and adjustment to the environment is actively monitored. Independent learning is developed by ongoing supplementary instruction and there is strong advocacy for their interests (Arendale 2005).

VSI differs from SI in that students are issued with all didactic presentations on videotape. Students do not attend lectures but engage with the video material, supported by specially designed facilitator and student manuals. VSI students led by a trained facilitator start and stop the presentations at stipulated intervals, and, as and when required and VSI incorporates periodic small group assignments to ascertain concept mastery. Feedback on tasks completed under the supervision and guidance of the facilitator allow students to construct and confirm their understanding (Arendale 2005). PLTL is where peer-leaders guide the activities of small groups in workshop format providing an active learning experience, creating a leadership role at undergraduate level and engendering faculty development in a creative dimension of instruction.<sup>9</sup> Students cooperatively solve challenging problems guided by peer leaders trained to ensure that students actively and productively engage with the material and each other. The supportive format facilitates conceptual understanding by encouraging discussions, students learn to work in teams and communicate more effectively while peer leaders acquire teaching and group management skills (Arendale 2005).

Curriculum and pedagogy that engender student engagement described as a student's commitment and application and the quality of student effort and learning evidenced by time and energy devoted to academic and learning activities and the meaning and understanding achieved by learning are significant factors in student retention and success. Engendering engagement is the mutual responsibility of the student and the institution with the latter responsible for

creating environments that facilitate engagement and learning by, for example, developing student-responsive curricula with authentic content, challenging tasks relevant to students' life experiences, adequate and appropriate orientation and induction and the integration of learning and other skills together with active and interactive learning paradigms and formative assessments for academic development (Crosling et al. 2009).

The choice of learning support programmes should be dictated by the learning-related student needs and necessitate faculty development as it is imperative that faculty not only have an excellent command of the disciplinary subject matter in the African context and are proficient in learner-centred curriculum development and pedagogies but also have the personal attributes of creating a supportive and affirming learning environment by being able to 'recognize individual potential, teaching with passion, relating to and motivating the student, validating different points of view, encouraging interaction and building [productive] relationships' (Cross et al. 2009:34-35).

### **Student Mentoring and Support Services**

The academic interventions described above should be augmented by 'appropriate guidance, emotional support, encouragement, financial and academic assistance in a caring, nurturing and non-alienating environment' (Laden 2004:16) mediated/facilitated by faculty, career and guidance counsellors (Laden 2004) and a total student counselling and welfare service that comprises of academic development, psycho-social and health services to provide comprehensive and holistic support for marginalized groups which have a particular set of needs related to their unique pre-higher education experiences.

#### ***Peer Mentoring***

Peer mentoring may be described as a process by which a more experienced/able student instructs, counsels, guides and facilitates the personal and intellectual development of a less experienced student (Holmes et al. 2007). The aim is to facilitate the transition from secondary school and enable the navigation of and integration into higher education. Peer mentoring has been advocated as a transformation strategy in higher education (Blunt and Conolly 2006) as has been its integration into the broader context of student learning and development (van Wyk and Daniels 2004). Peer mentors facilitate the induction and retention of students and enable them to realize their potential by providing psycho-social guidance and support. They serve as positive, encouraging and affirming role models (Blunt and Conolly 2006) and demonstrate the principles of accessibility, inclusivity, recognition of diversity in its many forms, adaptability and networking (Granados and Lopez 1999). Peer mentoring is encapsulated in SI, SLA, ALGs, PLTL, ESP and VSI, all of which allow the creation of learner

groups enabling learners to share across the curriculum and shape a shared, coherent educational experience via a supportive peer group (Favish 2005).

Mentorship between faculty and student is another option and requires a cadre of faculty who are considered realistic role models, who provide inclusive academic and personal advice, who monitor academic progress, who display sympathy and empathy and who play an affirming and advocacy role in terms of each student's unique academic, career and personal issues. Such faculty serve as mentors providing professional contacts, advice and leading by example; as academic coaches providing tutoring, encouragement and facilitating the fulfilment of academic potential; as advocates tabling student issues with relevant stakeholders and as counsellors listening to academic and personal problems, and providing support and sound advice (Guiffrida 2005).

The subscription to and subsequent success of mentoring programmes requires a well-designed organizational structure and implementation framework. Programmes should, in addition, enjoy credibility amongst mentors and mentees and they should be mentee-centred with due consideration given to factors such as race, gender, ethnicity etc. when assigning mentors to mentees (Page et al. 2005).

### *Student Welfare Services*

The Student Counselling Service (SCS) is vital to student retention and success in higher education, especially because of the growing enrolment of students from marginalized groups with diverse ethnic, social and educational backgrounds, many of whom have had inadequate secondary school preparation and thus encounter diverse learning barriers (Morrison et al. 2006 and Botha et al. 2005). Morrison et al. (2006) cited many studies that report on the positive impact of one or more components of the SCS on retention rates, on student learning, and achievement of academic targets, on students in stressful situations, on students at risk of drop-out as well as on positive personal outcomes such as improvement of self-esteem, anxiety and motivation. According to the International Association of Counselling Services, the SCS has three roles: (i) a holistic approach to student welfare, (ii) facilitating the acquisition of learning skills and (iii) personal counselling and/or psychotherapeutic services related to difficulties with integration, psycho-social problems and career counselling. Other functions include consultation with faculty, advocacy for student needs, programme development, retention activities and initiatives to enhance the campus environment by participating in a variety of institutional forums, providing feedback on student counselling-related needs and initiating and contributing to student policy development and review. Referral to faculty/tutors for academic aspects, other social support structures, internal and external to the institution and healthcare services, is implicit in the SCS. The role of a counsellor is thus four-fold, i.e. educational support including the psychometric assessment of

potential, career planning assistance, assistance with personal and emotional difficulties and referral to allied support structures as appropriate (Morrison et al. 2006).

Research on the value of the SCS is however largely on students that independently make use of the services and not necessarily those that should use the services but do not access them for reasons of stigmatization, unawareness, cultural underpinnings, etc. The SCS should thus be proactive, integrated and offer a range of services informed by comprehensive consultation with relevant stakeholders (including but not limited to executive management, faculty, departments responsible for student recruitment, student housing and student finance, student bodies, parents, potential employers, funders, professional associations and the wider University community) and commensurate with the needs of an institution's diverse student cohorts, ensuring that it reaches the target student cohorts and is marketed as integral to the mission and goals of the institution (Morrison et al. 2006).

### **Conclusion**

Developing and implementing a holistic model to translate equity of access into equity of outcome in marginalized groups requires the following as adapted from Laden (2005):

- Create a receptive, non-alienating environment that welcomes and celebrates diversity and integrates it into the institution's organizational culture;
- Provide appropriate programmes, curriculum, pedagogy and student welfare services by collaboration between faculty and student services personnel to facilitate and enhance students' abilities to achieve academic and career aspirations;
- Orientate and induct students to facilitate the transition from secondary school and enable successful navigation of and integration into the higher education system using mechanisms and/or resources such as extended orientation programmes, writing centres, tutoring centres, peer mentors, etc.;
- Implement a monitoring and early alert system that identifies students encountering academic and other difficulties and allows prompt intervention;
- Ensure that all initiatives and interventions are informed by relevant stakeholders, especially the very student cohorts for whom they are developed.

Higher education institutions thus require adequate numbers of appropriate human resource cadres including, but not limited to peer mentors, student counsellors and academic staff skilled with the ability to deliver learner-centred teaching and learning programmes, equipped with the knowledge, skills and attitudes to provide holistic student care, development and support to translate equity of access into equity of outcome.

### Notes

1. Reprinted exceptionally. The original version was published in *Higher Education in Africa: Equity, Access, Opportunity*, Institute of International Education, New York, 2010, pp 15-29.
2. University of KwaZulu-Natal.
3. <http://www.nepad.org/2005/files/inbrief.php> (accessed 23 September 2009).
4. Average for countries for which data was available.
5. <http://www.aarp.ac.za/uct/tests.htm> (accessed 23 September 2009).
6. [http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/Leuven\\_Louvain-la-Neuve\\_Communique\\_April\\_2009.pdf](http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/Leuven_Louvain-la-Neuve_Communique_April_2009.pdf).
7. <http://web2.umkc.edu/cad/SI/overview.html> (accessed 23 September 2009).
8. [http://www.ferris.edu/htmls/academics/sla/PI\\_Our\\_Program.htm](http://www.ferris.edu/htmls/academics/sla/PI_Our_Program.htm) (Accessed 23 September 2009).
9. <http://www.pltl.org/WhatIsPLTLDefinition.php>.

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