Student achievement: a gauge for attaining quality education

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A CREDIBLE ASSESSMENT FOR COMPARING STUDENT ACHIEVEMENT COULD BE A BENCHMARK IN FORMULATING POLICIES TOWARDS UPLIFTING THE LEVEL OF EDUCATION IN DEVELOPING COUNTRIES. Surveys of student performance have been carried out regularly by international agencies, the result of which usually portrays the school's level of performance vis-à-vis the standard set by the evaluating body. Though commonly participated only by about five percent (5%) of colleges and universities in each country, still its significance cannot be ignored. Firstly, the comparison system could point-out the weaknesses not only the schools under assessment but also those who were not included in the process. Secondly, advanced methods and strategies, functional processes and technologies of top-notch performers could be emulated and imbibed by low-performers. Thirdly, students in schools which are below standards, with a purpose of redeeming their institution, could be motivated to excel in their studies and consequently pursue a good career. Fourthly, higher learning institutions could be instigated to look for alternative ways to uplift their functions and performance. Finally, a system of international comparison of student achievement, highlighting the deficiencies and inadequacies in academic endeavors, would encourage the government to implement policies that may alleviate the poor condition of its educational system.

Keywords: assessment; student achievement; benchmarking; policy standards; quality education; developing countries

Introduction

Learning is gaining an understanding out of a particular experience. From the first time that the father taught his son in prehistoric era the method of creating fire, education evolved along with changes in society. As proven in history, civilizations prospered because of the incessant and dynamic ways in which ideas and skills were passed through from one generation to another. De Cadiz (2007) emphasized that in a primeval setting, quality of education is gauged according to how methodical or functional the acquired skill was while in the classical period, the value of learning is determined through its impact to the socio-cultural development of society. In modern times, evaluation of learning became complex and global in scope and its outcome is usually being equated with those in other countries as a means of expressing the level of worth *par excellence* of the educational system.

Formal education has been the typical system in which modern society tries to change the mental, emotional and physical character of an individual. The educational system of many countries today is customized according to governmental policies and the utilitarian expectations and needs of the populace. Students were compelled to follow a structured curriculum which

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consists of comprehending a pre-determined set of facts and demonstrating a particular proficiency. With the advent of globalization, online universities are gaining popularity as a substitute to traditional schools, bringing convenience and expertise to learners around the world as students usually can take classes from any location, at any time, and has access to world-renowned professors and course materials. Educational institutions always integrate tests and evaluation as a device that determines whether or not the students were able to acquire the prerequisite concepts and aptitude in a particular field of study. Assessment is significant in determining the scholastic capability of the learner or knowing the intellectual mastery of one student to another. But more crucial is in identifying the factors that differentiates the level of academic achievement not only of learners in one school but among various educational institutions in different countries.

Student Achievement and Quality Education

This paper presents a novel paradigm of understanding student achievement and quality education in Philippine context as compared with global standards. In Figure 1, de Cadiz (2009) delineates four competences that could be manifested through pedagogical processes, field or laboratory investigations and social interactions—quantified through a standardized assessment using criterions like reliability, validity, uniformity and contextuality of procedures.
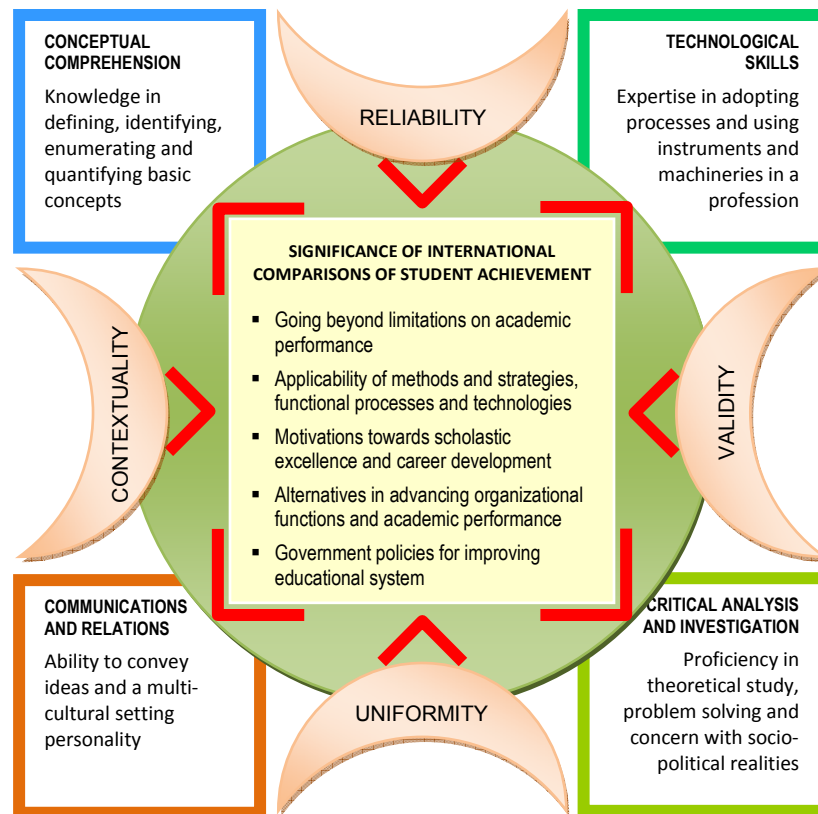

Figure 1. A paradigm of critical competences of learning as an analytical outcome from student achievement comparisons in a standardized assessment.

Superior knowledge is characterized by an integrated personal proficiency in a field of study. Conceptual comprehension implies that a learner should be able to define, identify, enumerate and quantify basic concepts. Study areas like Mathematics, Sciences and Reading necessitates for a student to have a complete understanding of the fundamental and advanced ideas in various subject matters. Technological skills require that the learner should gain expertise in adopting processes and using instruments, tools and machineries in a particular profession at the same time finding ways to invent original technologies. As learning goes to a higher level, the ability to perform critical analysis and investigation needs to be acquired which refers to proficiency in theoretical studies and problem solving that eventuality will enable an individual to explain and find solutions to social issues. The final attribute is on communications and relations which is the capacity to convey ideas in a global context and showing a personality that is acceptable within a multi-cultural setting. But whatever method and strategies employed by the teacher, there is quality education if learners manifest higher level intellect which could be an asset in acquiring a satisfactory career and a respectable status in society. Among students in Education, de Cadiz (2008) found out that a college diploma is perceived to be a ticket for a well-paying employment while earning for a person the respect of the community.

However, evaluation of learning must apply parameters that would make the assessment result plausible. This entails making the procedure reliable based on proven system, the instruments used should have been validated first as to accuracy and consistency, the test was conducted through a homogenous setting, and the content of evaluation was designed within the context of prevalent theoretical underpinnings and social realities. In the schema, a credible assessment could become the foundation of analyzing the implications of international comparisons of student achievement.

Globalization and Assessment

Globalization eliminated state-enforced restrictions and paves the way for educational institutions to adapt to a complex interaction with one another in the international realm. In the academe, it resulted to the emergence of a distinct yet universal cultural pattern, the proliferation of avant-garde theories while debunking long-held doctrines that led to a new concept of appreciating knowledge, the reexamination of values and institutionalized beliefs, the use of information and communication technologies in all aspect of scholastic endeavors and establishment of a paradigm that enables both individual learner and the school to advance in a challenging environment. In the vocational milieu, globalization created an impetus in many governments to realign their policies that would make their workforce competitive in the world market. The assertion of Aguirre and de Cadiz (2011) emphasized that credible assessment and accreditation of curricula will usher the offering of programs for students to acquire specialized skills suited to the demands of various industries. When analyzed within the framework of educational management, globalization could yield a just system of assessment. Schools in First World countries will become responsible in technological development and applications while those in the Third World will be encouraged to utilize processes and develop expertise at par with international standards. Ascertaining the relationship of globalization towards educational assessment, international standard evaluation system will usher a competitive atmosphere that could accrue socio-economic benefits to all.

Assessment is necessary to gauge the level of academic achievement. It ascertains the respective role of each person in society by ascribing merits to each individual so that

corresponding task could be assigned to him/her as a responsibility in maintaining the well-being of the community. There is a common perception that evaluating the academic performance of students among schools in various countries does not really reflect the individual's real strength and capabilities since instruments used in the survey are limited in scope, aside from the obvious disparities in economic and socio-political background of such institutions. To have a realistic assessment, De Guzman-Santos (2007) clarified that it can be made precise, accurate and dependable only if what we want to be achieved are clearly stated and feasible, considering learning targets on knowledge, reasoning, skills, products and effects that needs to be stated in terms which denote something that can be observed through the behavior of the students.

Comparative Survey

Evaluating schools are usually intended to provide information that will help the public understand the results across studies, grasp the similarities and differences among the studies and results, and identify what each assessment contributes to overall knowledge on student performance (McGrath, 1990). For instance, the Program for International Student Assessment (PISA) revealed in 2010 the result of its educational assessment indicating that Shanghai students scored the highest in the world in every category (Math, Reading and Science). It was explained that the Chinese excelled by abandoning their focus on educating only the elites, and instead worked to construct a more inclusive system, increasing teacher pay and training, reducing the emphasis on rote learning and focusing classroom activities on problem solving.

A global comparison of educational institutions has become competitive and renowned, with those at the top being envied upon and usually serves as the basis for financial endowment from research or corporate benefactors. Sowter (2007) argued that world university ranking is an attempt to present the most accurate picture of global higher education ever produced, employing separate performance indicators designed to capture the full range of scholastic activities through rigorous, transparent and reliable evaluations. The World University Rankings, published by Times Higher Education in partnership with Thomson Reuters, classified the world's top universities thru categories like: a) teaching or the learning environment (30%); b) research or the volume, income and reputation (30%); c) citations or research influence (32.5%); d) industry income or innovation (2.5%); and, e) international mix or the staff and students (5%). In its latest report, American schools dominated, i.e., Harvard University, California Institute of Technology, Massachusetts Institute of Technology, Stanford University, Princeton University, University of Cambridge, University of Oxford, University of California-Berkeley, Imperial College of London and Yale University, reinforcing the notion that a country's political and economic strength is a decisive factor in promoting and sustaining quality education.

But in some cases, the ranking system would become intensely controversial. The criticism lies on placing too much emphasis on peer review, which receives 40 per cent of the overall score, likewise finding errors in the faculty-student ratio used in the ranking. The use of the citation database is also questionable as it undervalues institutions who excel in the social sciences (or arts and humanities) compared to the natural sciences. The most recent criticism came from Bookstein, et al. (2010) for the unreliability of ranking methods, stating that several individual indicators from the survey data base demonstrate unacceptably high fluctuation resulting to statistical instability. However, whatever critique or disparagement there could be against comparing students' performance or university reputations, the concept of determining the status of educational institutions on a global scale could explore how a credible comparative

assessment of student achievement—through established evaluation and ranking systems by reliable international assessment organizations—could serve as a standard in strengthening the level of education in developing countries like the Philippines.

Significance of International Comparisons

Comparative international analyses can extend and enrich the national picture by establishing the levels of performance being achieved by students in other countries and by providing a larger context within which to interpret national results. They can provide direction for schools' instructional efforts and for students' learning as well as insights into curriculum strengths and weaknesses. Coupled with appropriate incentives, they can motivate students to learn better, teachers to teach better and schools to be more effective. They also provide tools to allow central authorities to monitor achievement levels even when administration is devolved and schools are being run in partnership with communities. Furthermore, assessment allows national policy makers to compare the performance of their education systems with those of other countries, enhancing focus and motivating educational reform and school improvement, especially where schools with similar inputs achieve markedly different results consequently serving as a basis for better assessment and monitoring of the effectiveness of the education systems at the national level (OECD, 1999).

Going beyond limitations on academic performance
The educational system in developing countries is commonly regarded to be behind in the race towards making their graduates compete with those in First World countries. The problem involves the worsening budgetary cuts, technological backwardness, inappropriate policies and short of opportunities for students to be exposed and learn in a global context. To offset this imbalance, agencies concerned with educational system have been seeking remedies, either institutionally or from external help. The usual strategy in this goal is to implement a culture of accreditation among schools especially those in the collegiate level.

Quality assurance in higher education is a process by which an institution is evaluated at least in part by an external body for a level of quality in its educational offering. Assessment as a necessary factor in quality assurance needs to resolve with issues of quality and fairness in the international mobility of students, scholars and professional, credential evaluation and recognition programs, and international educational linkages (Penn, 1992).

Comparison in academic achievement afer evaluation also portrays how academic standards served as benchmarks of quality and excellence in education based on rigorous curricula and the difficulty of examinations. The maintenance of quality in education is a well-guarded policy, even to the point of limiting the number of students being admitted. Addey (2011) agree with this contention that extending higher education to an increasingly large proportion of the population may led to concern that this will result in dilution of the academic elite and so caused a lowering of academic standards.

In the Philippines, one of the important strategies of helping students achieve better in scholastic endeavors is to immerse them in field works or industrial exposures so that they could apply their theoretical ability to real-life experiences. But this approach must be studied very well since variability of students' placements in industry, commerce and the public sector, the differing quality of learning opportunities and the diverse approaches to the supervision of students are some of the hindrances to the assessment of learning at the workplace. Bennet

(1999) suggested that it is imperative that course executives, in collaboration with employers, should ensure that: a) the learning process and the procedures for assessment (and self-assessment) of work-based learning are well-documented and made public; b) the most appropriate sets of tasks in which to assess competences are identified; and c) biases (personal, professional and theoretical) are discussed with employers, other course staff and students alike.

Applicability of methods and strategies, functional processes and technologies
The output of any assessment of students' achievement could reveal certain differences in terms of organizational methods and strategies as well as functional processes and suitable technologies for the efficient and effective delivery of services to clienteles. Looking into the managerial style of schools, it can be observed that those in developed countries fare better in guiding their institutions in the achievement of goals. It also includes governmental policies which must meet with the methods employed by accrediting agencies. Wellman (1998) noted that in the United States, federal standards include mention of institutional improvement and quality enhancements but they measure conformity to process without regard to demonstrated effectiveness in carrying out accrediting functions. Designed to encourage competition and experimentation among accrediting agencies, the federal procedures do not distinguish between agencies on the basis of demonstrated effectiveness in quality review.

Currently, less-acclaimed institutions are trying hard to imitate come strategies of superior universities, particularly on the use of information and communications technology (ICT). It has been demonstrated that a series of online professional development courses (OPD) that target specific student learning needs can have positive effects on teacher's content knowledge and instructional practices. Teachers' participation in these courses has effects that translate into improvements in targeted student outcomes (O'Dwyer, et al., June 2010). OPD is also proliferating in an effort to eliminate barriers to high-quality in-service teacher training. Using the Internet as a vehicle for continuing professional development, however, introduces new concerns largely absent in its face-to-face counterpart (Reeves, 2011).

However, educational institutions must be cautious in ICT utilization. It could definitely help students improve their scholarly undertakings but unrestricted or misguided exposure to it may have an adverse effect. In the article about globalization and higher education, a group of professors opined that information technologies (IT) have brought largely positive systemic change to their research and teaching activities, with advances in IT enabling a ready exchange of scholarly information via the Internet. The fact that students are exposed to a deluge of information that may be easily retrieved is simultaneously cause for concern when one considers whether they have the intellectual capacity to critically process this information. Virtual education both increases educational access while at the same time 'commodifying' an educational product in an educational marketplace (Weldon, et al., 2010).

Motivations towards scholastic excellence and career development
Standards-based education is still the core idea guiding education policy and education reform. Shepard (2010) provided that the intentions of standards-based education—to focus greater attention on student learning, to ensure the participation and success of all students, and to provide guidance for educational improvement—are in the best interest of the country. We know enough to create a new generation of policies, tests, and curricula that will focus greater attention on learning and will reduce the amount of effort spent preparing students for tests that do not adequately reflect the conceptual goals of instruction.

The world's top universities achieve excellence, prestige, brand name, and scientific credibility by meeting four essential requirements: (i) access to world-class research facilities, and concentration of (ii) faculty talent, (iii) student talent, and (iv) financial resources. The world's top universities ensure these aforementioned four essential requirements by: (i) seeking a broad funding base (including tuition fees), (ii) performance-based payment, (iii) a highly selective admission process, (iv) competition in research funding, (v) independence and (vi) focus (Galama, 2006). These prerequisites were the ones lacking mostly among schools in developing and much more in underdeveloped countries. As a consequence, students found it difficult to acquire the kind of knowledge and skills that would make them at par in achievement with those in developed countries.

Educational institutions in developing countries have still a lot of catching up to do when it comes to curricular development. It is now a reality that traditional universities have developed their own online course offerings, realizing that the benefits of technology to education are tremendous. It is estimated that 80% of them—ranging from the Ivy Leagues to community colleges—have created online components to their curricula. These schools have found that online courses increase student-professor communication and interaction, they provide an opportunity for the professor to use technology to provide supplementary instruction, and they provide a means for the professor to track and report student progress. So the reason of offering online classes is not only due to the enhancements they bring to education, but also simply because the demand is there.

When it comes to career preparation or employment placements, students across the world want quality education now more than ever before—and they want it conveniently. As cited by Schelin (2001), a good education is a worker's greatest asset, and the divide between those with an education and those without is growing larger every day, while financial repercussions of not being adequately educated will continue to grow, leading to greater participation in post-secondary education, particularly by adults who need to 'refresh' educations that have grown stale. Thus, with the dismal condition of its educational system, students in developing countries with comparatively low academic achievement could be motivated to find alternative means to excel in their studies and acquire a high-paying job.

Alternatives in advancing organizational functions and academic performance
The practice of comparing student achievement as determined through accreditation has evolved over the years in response to the changing higher education environment, which involve three major changes: a) the growing demand for increased accountability; b) reduced funding and rising costs and pressures to find more cost-effective solutions in every aspect of higher education; and, c) changing structure and delivery of higher education including new types of educational institutions and the increasing use of distance learning that allows institutions to operate on a national and global scale (Schray, 2005)

In the latest PISA comparative survey of the academic performance of 15-year-olds around the world, it has been found out that there's little difference in the performance of students from private schools and those from public schools, once socioeconomic differences have been factored out. Another is that paying teachers well is a more effective tool for improving school performance than small class sizes. The survey also raises doubts about the overall effectiveness of aggressive competition between schools. It found that this could trap the most disadvantaged students in the least successful schools, thereby exacerbating social inequality and negatively impacting a nation's overall performance. This situation clearly shows

that what can be achieved with moderate economic resources and in a diverse social context, at the same time indicating that students in developing countries could still find some alternative solutions to the inherent financial and technological deficiencies in order to improve their academic performance.

Government policies for improving educational system

Globalization's various manifestations are vast and complex and it has challenged national borders and long-established institutions of governance, and has reconfigured cultural norms and behaviors. In the Philippines, raising student achievements—whether in basic education through the Department of Education (DepEd) or in collegiate level through the Commission on Higher Education (CHED)—has been a consistent concern by concerned stakeholders and those who are in-charge of improving the educational system. Following global trends, the DepEd regularly conducts national assessments particularly on such fields as Maths, Sciences and English Literacy. On the other hand, improving the academic achievement of students is an integral program of CHED by encouraging higher educational institutions to adopt policies and standards as manifested in other countries. The task of maintaining quality in education is a cooperative effort between the government, the school constituents, the parents and other stakeholders.

A commentary of de Cadiz (2010) contended that leading universities not only in the Philippines but also in many countries have fallen in the rankings for institutions of higher learning while the basic skills of graduates in the elementary, high school and college levels have been found wanting. Although various governments have placed education on top of its development agenda, reflecting the standard wisdom that providing good education is the way out of the endemic poverty among millions of people worldwide, a lot of Third World countries still confront considerable problems like inadequate funds, corruption, commercialism, profiteering and poor quality of teaching.

The unfortunate status of the educational systems in developing countries needs to be resolved at the highest level, with the government implementing sustainable policies that will address the aforecited problems. One priority solution could be the enactment of higher budget not only for teachers' salary but also for their graduate studies or scholarships in domestic and international universities as well as participation in trainings, seminars and other professional enhancement activities. Research and development must be institutionalized with the participation of all constituents in the academe. High-end technologies must be utilized in all aspect of the learning process. Construction of facilities and acquisition of equipment and other instructional materials must be free from corruption in order to maximize its budget. The government needs to adopt a system of control that will encourage higher educational institutions to pursue quality assurance and make accreditation process an integral part of the curriculum. Finally, best practices from world-class universities should be emulated as benchmarks of excellence that will enable the students to strive towards academic excellence.

Conclusion

Superior student achievement could be accomplished only if there is a genuine government policy of improving the educational system. Each learner must be provided with opportunities to develop wholistically in basic skills like conceptual comprehension, technological skills, critical analysis and investigations, and communications and personal or social relations in his/her respective field of discipline. To gauge the value of a process of learning, assessment techniques

must be validated and standardized using such criteria as reliability, validity, uniformity and contextuality of procedures. Evaluations, technology-enabled and universally-designed, must be intended to acquire higher-order skills, impart more precise opportunities for student progress, and monitor classroom instruction so as to respond to academic needs and social demands.

A critical analysis of student achievement must be given utmost attention by the educational agency of each country. Regarding the sub-standard performance of students during assessment as a basis, the government should commit to raise financial support to the educational sector as well as creating opportunities for greater number of the population to avail of quality education. The effect of globalization must be taken as a challenge and opportunity for learning institutions to realign its academic policies and standards for the betterment of students, knowing that education is an instrument that shapes attitudes, values, and understanding of a multicultural democratic citizen who can be part of this increasingly cosmopolitan world. Therefore, student achievement could be used to appraise organizational and academic functions of educational institutions that will determine the attainment of quality education.

Recommendations

The analysis of student achievement as a gauge in determining the quality of educational level yields a paradigm that students, professors, school administrators and government agencies could employ in advancing the educational system. The following propositions are hereby forwarded:

a) Assessment instruments in the local, national and international level must reflect a complete range of items that will show the qualitative and quantitative factors affecting the academe, its resources, constituents and clienteles.
b) School administrators or executives must initiate planning and formulate policies about the kinds of verification mechanism that would best reflect the quality of their schools.
c) Educational institutions need to equip students with innovative ideas, proficiencies and moral principles for them to become responsible and productive citizens.
d) The government should adopt policies towards sustainable student development and the attainment of quality education.
e) A culture of excellence in all endeavors must be implemented in educational institutions.

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