

**THE PEDAGOGICAL POTENTIALS OF IMPLEMENTING NOTIONAL HOURS IN
RELATION TO THE BOLOGNA PROCESS: A CHALLENGE TO HARMONIZE
THE EDUCATIONAL PARADIGM IN HIGHER EDUCATION**

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ABSTRACT: *The act of harmonization, transparency, mobility and competitiveness across international norms and standards is the wake of the global challenge to synchronize the educational paradigm in higher education. The realms of the Bologna process, together with the implementation of the Notional Learning Scheme of learning, optimizes pedagogical potentials and educational paradigms as it diverts the focus of the educative processes towards international standards of university teaching contexts in a dialogic scheme of teaching and learning. Contextualized within the frameworks of harmonization, transparency, mobility and competitiveness across international norms and standards, challenges are posted if it is to be made effective in the light of attaining the real pedagogical potentials in the authentic essence of paradigm shift in higher education.*

KEYWORDS: Pedagogical Potential, Notional Hours, Bologna Process, Dublin Descriptors, Assessment and Marking Scheme.

INTRODUCTION

The declaration of the Bologna Process, as embodied in the European Higher Education Area (EHEA) framework, treats 5 keystones to oversee the consistency of quality in its higher education: harmonization, transparency, mobility, competitiveness and European Credit Transfer System (ECTS). These underpinning keystones will take a lead in a trend of European standard in higher education as it was done when it started the first universities in Paris. Hence, the process has inadvertently impinged and spawned judgment towards globalization in education and academic standards.

Concomitantly, the process intrudes procedures, beliefs and standards as it opens its system for potential changes in its academic framework: adjustment of teaching methodologies, Organization of formal contact hours and the adaptation of student evaluations (Veiga & Amaral, 2007). Together with its academic prowess are the definition and limitations of actions and interactions of the actors and actresses in the dynamic teaching-learning process: the student-learner, the teacher, the academic and curricular material of the academic environment. The potentials of the pedagogical approaches of the Bologna process will be relatively in-vain if the aforementioned curricular components are not complementary with each other.

Learning experiences offered in the dynamic classroom environment must pole-vault the instructional cognition since the process is encroached by a dichotomy of curricular instructions and academic learning behaviors. This shall complement mechanisms of competence which are observed and mastered in the framework of noninterventionist education and learning. Learning activities and experiences must be designed to harness students' potentials as inventive and conjectural, pragmatic and normative, comparative but

explicit learners in a sustained community of inquiry in a dynamic classroom situation. Thus, mastery is inevitably done through exposures to an array of meaningful learning experiences and activities under the niche of that dichotomy, together with concept of notional hours to harmonize the credit and transfer credit in a universal sense and standard.

Central to this dichotomy are the challenges in the concept of university teaching contexts relative to the challenges of the 21st century in Higher Education. As competence is associated to the course credit, learning outcomes and behaviors, as well as course expectations, must be spelled-out and justified through the amount of teaching and learning experiences. The volume of teaching and learning, measured in terms of time of study whether face-to-face instruction or online instruction, number of notional hours expressed in credits, etc., is likely to be a skin-deep process potentially done to achieve specific course intended learning outcomes (CILO's).

Credits, which indicate the amount and rigor of learning to complete a course module, degree and other qualifications, are based on the concept of notional hours. Notional hours are sets of learning experiences and activities which students used to master a certain course outcomes (CO's) in relation to the program outcomes (PO's), e.g., contact hours, library researches, brainstorming, focus-group discussions, case studies, term papers, problem sets, capstones, assessment and evaluation, among others. Hence, notional learning hour is the time judged required for the 'average learner' to achieve the learning outcomes and does not measure the time actually taken by any individual learner in a system of program which may either be outcome-based instruction or unitized or modular in nature (SCQF Handbook: User Guide, 2009).

The crux is: these potential changes are threatened if both teachers and student-learners are not involved in owning and driving these mechanisms to a feed-forward assessment mechanism of student learning towards mastery of course intended learning outcomes (CILO's). Hence, harmonizing the educational paradigm responsive to the course credit and challenges of university teaching contexts.

Objectives of the Study

This study is designed to determine the pedagogical potentials of implementing notional hours in relation to the Bologna process in harmonizing the educational paradigm as a response to the converging international standards of university teaching contexts.

Specifically, it sought to find explanations of the following:

1. What are the pedagogical challenges of the Bologna process in the university teaching contexts?
2. What are the notable advantages of implementing notional hours in relation to the Bologna process in the university teaching contexts?
3. How do the pedagogical potentials of implementing notional hours in relation to the Bologna process be used in harmonizing the educational paradigm along with the university teaching contexts?

THEORETICAL FRAMEWORK

The Bologna Process. The Bologna process, which is known as the Framework of European Knowledge, is viewed as an irreplaceable factor in hastening the social and human growth as an indispensable component of a unified education system to enrich the European culture of academic climate. Offering the necessary competences among its citizens and future

international students, the process shall instil awareness of shared values that belong to a common social and cultural legroom. This phenomenon is cognizant to the importance of education and academic cooperation in developing and strengthening established, serene and egalitarian societies in a paramount that is universally acknowledged and practiced.

The 1999 Bologna declaration and ratifications commit universities to the:

1. adoption of a system of easily comparable degrees in order to promote European citizens' employability and the international competitiveness of the European higher education system;
2. adoption of a system essentially based on two main cycles, undergraduate and graduate. Access to the second cycle requires successful completion of the first-cycle studies, lasting a minimum of three years;
3. establishment of a system of credits as a proper means of promoting the most widespread student mobility (European Credit Transfer System or ECTS);
4. promotion of mobility for academics.

The Notional Hours Scheme in Relation to Credits. The South African Qualifications Authority (SAQA) introduced the idea on credits in relation to the notional hours scheme as an integral part of the outcome-based instruction. SAQA formulates 1 credit with 10 notional hours of learning experiences and activities. This formulation is similar with the standards of the UK, Scotland and the Australasia. However, the rule for contact institution is 2 hours of notional hours for 1 hour of classroom contact hour for face-to-face instruction.

Notional hours is regarded as the amount of time it takes for the average students to master, use and achieve specific course intended learning outcomes to a certain course module.

A clear and well formulated intended learning outcomes is necessary in the calculation of notional hours; its workload formulation and design that suit best in responding to the newer psychology of teaching and learning. This international good practice was originated from Australia to India to the United States and to the new European Union Initiative.

The following is a tool for calculating the workload for a module of 12 credits or 120 notional hours on the assumption that 90 % of the student-learners are using the English language as an additional language (adopted from Kilfoil, 2013).

Table 1. Sample Calculation of Workload

Activities	Estimated student time in hours
Reading and comprehending study guide of 200 pages, including note-taking (at five to ten pages an hour; average of 7.5)	27
Reading and comprehending textbook of 200 pages, including note-taking (average of 7.5 pages an hour)	27
Reading and comprehending Tutorial Letter 101 of 50 pages (average of 7.5 pages an hour)	7
Completing activities in guide and reading feedback	20
Completing self-assessment in guide and reading feedback	4
Attending tutorials/ group visits/ satellite broadcasts/ videoconferences at learning centre (preparation and attendance) (Nadeosa benchmark: 10% of notional hours for contact)	(12)
Completing 4 assignments (5 hours to produce 200 words, half on reading): (Nadeosa benchmark 15% of notional hours on formative assessment = 18 hours) <ul style="list-style-type: none"> • Reading • Drafting and revision • Writing/ typing final copy 	20
Reading and comprehending other tutorial letters	8
Listening to tape	(1)
Viewing a video	(1)
Participating in 3 online discussion forums (4 substantial contributions per forum = 2 hours per forum plus reading others' contributions = 2 hours per forum = total of 12)	(12)
Peer collaborative learning	(5)
Study/ career counselling	(1)
Practical/ laboratory work/ service learning	(12)
Revision	5
Examination	2
TOTAL	120 (164)

The Educational Paradigm. The teaching-learning process, in the scope of learner-centred curriculum, needs a careful learning needs assessment so that the teacher's tactics, as well as approaches to teaching-and-learning, are inclined supportive to what it owes to measure and reinforce: harmonizing the triadic educational paradigm of the teaching-learning process, (1) Learning aims (CILO's), (2) Methodological Plan and Tactics, and (3) Assessment and Marking Scheme. This harmonization plays an integral part of learner-centered teaching, allowing the teacher to check the learner's needs in relation to the attainment of the CILO's.

Corollary to this educational paradigm is the implication of the dialogic paradigm of teaching as to the negotiation of how the "Learning Aims (CILO's)" will be defined,

assessed, scored, measured and evaluated in terms of a feed-forward assessment and marking scheme.

Relative to the dialogic paradigm of teaching and learning is the introduction of an educational prescription (introduced by Sackett (1991) as Sackett's Cube in Sackett, et al, 1995). Three (3) independent factors to effective learning were postulated: (1) Whether learning based on real problem, (2) Whether evidence is searched for independently by the learner, and (3) Whether critical appraisal skills are well enough developed to formulate implications for practice. The job of the teacher is to introduce a prescription of the learning plan in a dialogic manner that enables the learner to draw and implement a plan. This tactic facilitates the learner's ability to look-back and evaluate evidences found in the process by them. Done in a focus-group discussion and case studies and analysis using Heuristic and Counselling Teaching Methods, resultant learning is done and realized by the learner.

METHODOLOGY

This study was based on a case study – dwelling on an inference as the focal point for discussion and investigation: to harmonize the educational paradigm using the teaching potentials of implementing notional hours in relation to the Bologna process. The Explicative-Reductive Method was employed in this study focused on the contemporary event characteristics of the common interests in the academic community: the harmonization of the educational paradigm based on international norms and standards (The Bologna Process and the Notional Hours Scheme of Learning). The Explicative Method was used to account a context encompassing variables and qualities attributed to the problem. This paved for the determinant of the state of the act of harmonizing the educational paradigm. On the other hand, the Reductive Method was used to elicit the potential variables of the identified context for enrichment and further analysis. It involved a systematic investigation using documentary analysis as the predominant method of data collection. Corroboration of findings, vis-à-vis with the identified norms of the context of the study was used to conclude on the topography of the study.

RESULTS AND DISCUSSION

1.1 The pedagogical challenges of the Bologna process in the university teaching context.

The Bologna Process precludes the conception for greater compatibility and comparability of the systems of higher education and is making it easier for learners to be mobile and for institutions to attract students and scholars from other continents. Higher education is being modernized with the adoption of a three-cycle structure including, within national contexts, the possibility of intermediate qualifications linked to the first cycle and with the adoption of the European Standards and Guidelines for quality assurance. It also foresees the creation of a European register for quality assurance agencies and the establishment of national qualifications frameworks linked to the overarching European Higher Education Area framework, based on learning outcomes and workload of both the teacher and the learner in relation to the pedagogical change. Moreover, the Bologna Process has promoted the Diploma Supplement and the European Credit Transfer and Accumulation System to

further increase transparency and recognition in its act of striving for excellence in all aspects of the higher education.

This wake optimizes the labour markets as it relies increasingly on higher skill levels and transversal competences of students. Higher education is challenged to equip students with the advanced knowledge, skills and competences they need throughout their professional lives. Employability empowers the future professionals to fully seize the opportunities in the changing labour markets. Hence, the Bologna curricula raise initial qualifications as well as maintaining and renewing a skilled workforce through close cooperation between governments, higher education institutions, social partners and students. This will allow institutions to be more responsive to employer's needs and employers to better understand the educational perspective. Higher education institutions, together with governments, government agencies and employers, shall improve the provision, accessibility and quality of their careers and employment related guidance services to students and alumni. Hence, work placements embedded in study programs as well as on-the-job learning are encouraged (Bologna Process 2020: Leuven and Louvain-la-Neuve, 2009).

The development of the Bologna process is the conception of a dichotomic classification of teaching and learning in university teaching contexts. The first dichotomy differentiates between Bank learning and Dialogue learning. Bank learning is characterized as the conventional and foremost prototype in university instruction. Dialogue learning is distinguished as the learning prototype that best facilitates the acquisition of the multifaceted learning that leads into the mastery of learning outcomes as required by university training.

The second dichotomy discriminates between superficial learning and profound learning. This dichotomy is only possible to generate a multifarious learning process when the student is vigorously involved in the learning process. Moreover, this happens when the student is able of thoughtful capacity of discriminating relationships between different knowledge content. In doing so, the student-learner is expected to employ this knowledge correctly to various learning experiences towards life-long learning.

In the Bologna reforms, administrators and managers, which are becoming increasingly professionalized, act as the non-academic units, creating more insistent pressure on the need of academic inputs to achieve the requirements set by external stakeholders, such as the European Commission in the case of the ECTS and Diploma Supplement labels. As advocated by Clark (cited by Veiga and Almaral, 2007), "The growth of the new bureaucracy is aided and abetted by the efforts of the new units on the periphery of the changing university that regularly and systematically link up with the outside world" (Clark, 2003). The new university managers work together with professors to produce better outputs and "if they start out on the periphery, they do not remain there instead they move toward and into the centre affairs" under the university teaching contexts (Veiga and Almaral, 2007).

Furthermore, the Bologna process establishes a causal correlation between the student learning approach, in the real meaning of a paradigm shift, and the objectives of Bologna as "it will enable students to become the engaged subjects of their own learning process, and also contribute to improving the many issues of progressing between cycles, institutions, sectors and countries" (Crosier et al., 2007).

In the Portuguese case (Veiga and Almaral, 2007), the pedagogic and curricular reform was seen as an additional outcome of Bologna, is seen by HEI's as the main opportunity to achieve change, the fulfillment of the Bologna goals (e.g. mobility and employability) being an additional outcome. In other words, the perceptions of goals assumed different configurations. For some institutions mobility and employability were the Bologna goals and the paradigm shift was something that might be achieved in the course of Bologna. Conversely, Portuguese HEI's saw Bologna as a window of opportunity to introduce pedagogic and curricular reforms without targeting the reform to the goals of Bologna (e.g. mobility and employability).

Qualifications frameworks are important instruments in achieving comparability and transparency within the EHEA and facilitating the movement of learners within, as well as between and among, higher education systems. It also helps HEI's to develop modules and study programs based on learning outcomes and credits, and improve the recognition of qualifications as well as all forms of prior learning (London Communiqué, 2007).

1.2 The notable advantages of implementing notional hours in relation to the Bologna process in the university teaching context.

Implementing notional hours in relation to the Bologna process is the integration of education and training that leads into the development of the notion of applied competence in learning and autonomy of learning.

Applied competence is the overarching term for the three interconnected kinds of competences: practical, foundational and reflexive. Practical competence encompasses the demonstration of the learner's ability to mull over various ranges of possibilities needing action, follow-up and execution. Foundational competence calls upon the learner's ability to demonstrate his understanding to a concept and his ability to think about the action that has been employed. The learner's reflexive competence deals on his ability to incorporate his various performances to a wise decision making and to the adaptation of a mechanism responsive change (SAQA, 2000).

Autonomy of Learning is a learner's faculty of propagating aesthetic value towards lifelong learning, i.e. the degree to which student-learners undertake action for independent learning, the degree to which student-learners take responsibility towards self-learning and the degree to which student-learners are self-reflexive, and the ability to evaluate the quality of their learning. Succession of learning experiences as well as progression of competences in this category starts from the student-learners dependence on other-regulation to self-regulation, and from close regulation to innovative, self-ruling learning leading to the ability to oversee the learning of others.

1.3 The pedagogical potentials of implementing notional hours in relation to the Bologna process in harmonizing the education paradigm along with the university teaching contexts with emphasis on assessing student learning.

Concomitant to the implementation of the notional learning hours in relation to the Bologna process owing the credit transfer system are three important tenets: (1) The intended distance travelled or the intended entry and progression of the course of study; (2) The content to be covered which includes the knowledge, skills and broader competences and standards of the EHEA; and (3) the kinds of learning activities required in the mastery of known competences which includes assessment, formal

teaching/training, supervised and unsupervised practice work, private study and revision, remediation programs whether being counselled, mentored or a form of reflection.

If the convergence of the notional hours with the Bologna process along with the university teaching context call for a zest indulgence to evaluating student learning and course outcomes, then a sound, varied and reliable assessment and marking system is highly wanting that is complementary with the course module, material and instruction vis-à-vis with the methodological plan and tactics.

Relative to the dichotomy of learning and the propagating sense of learners' autonomy of learning process is the feed-forward mechanism of assessing student learning and course outcomes: a series of simple to multifaceted assessment mechanism that optimize their succession and progression of skills, knowledge and competence towards their inner drive in learning.

Assessment, if it is to be a feed-forward mechanism, needs the involvement of the student-learners: Self-Assessment, Peer-Assessment and Shared-Assessment, all in the concept of dialogic learning mechanism. Dialogues and feedbacks, as well as agreements, form a broader process of curriculum negotiation. This mechanism has the following prowess: (1) Considerably improve student motivation and involvement in learning process; (2) Helps timely correction of gaps and problems arising in teaching-learning process, thus improving student learning and teaching-learning processes in the university; (3) Constitutes a learning experience in itself; (4) Is the most logical and coherent form of assessment when teaching is based on Dialogical Learning and/or models focused on student learning and development of personal and professional competencies in line with those set forth in the process of convergence towards the EHEA; (5) Facilitates the development of critical analysis ability and self-criticism; (6) Develops student responsibility and autonomy in the learning process (acquiring great potential in developing life-long learning strategies; (7) Significantly improves and raises academic performance in subjects where this type of assessment system has been implemented. This important improvement in academic results is the logical effect of these mentioned advantages (Lopez-Pastor, 2009; Lopez-Pastor, et al, 2011; Lopez-Pastor, 2011).

Another significant option (Lopez-Pastor, 2011) is offered to elucidate the progression of skills as practiced by the author in Spain: Continuous or Ongoing and shared assessment, Mixed and Final Exam only. **Continuous or Ongoing and Shared Assessment.** Learners are bound to continuous class attendance and punctual assignment submission, as well as correction of those assignments and other formative assessment methods. Learning activities offered in this scheme are all performed collaboratively with their peers. Learners are assessed on a pre-agreed marking criteria, self-assessment, peer-assessment and shared assessment. **Mixed Assessment.** Learners are bound to continuous class attendance, submission of assignments (without deadlines) and a compulsory tutored learning. Learners are assessed based on examinations and class assignments. Additional workload and other learning activities may be in form of individual or in groups. **Final Exam only.** Learners are bound to take the final exam only. They are assessed based on theoretical exam, practical exam and oral defense. Hence, learners must pass each of the three exams to pass the subject.

This paradigm shift impinges a great modification in methodological planning and assessment and marking scheme in order to carry-out specific course intended learning outcomes (CILO's). Specific attention must be drawn to assessment and marking scheme that must be a strategic stride in improving learning and not simply a way of monitoring and certifying students' success or failure in mastering learning aims (CILO's). Assessment and evaluation plays a vital role in improved learning and quality instruction of teaching-and-learning.

Owing the scope of assessing student learning are the teacher's and students' workloads as it draws a vivid relation to a sound assessment scheme in promoting and improving learning. Hence, it must be clinical in nature so as to reinforce learning. Hence, these paradigm shifts leading to the harmonization of the educational paradigm is in sound success if it offers an overarching innovation in assessing student learning that assesses the multifaceted competences of the learning process and in the total development of the student-learners towards life-long learning.

IMPLICATION TO RESEARCH AND PRACTICE

On the basis of the aforementioned findings, the following are forwarded:

1. Instruction should offer a diverse learning experience. Diversity includes pedagogical procedures and methods, and teaching force. This scenario brings a diverse experience among student-learners whose faculty is a conglomeration of a diverse preparation, background and orientation. In the case of the United States of America, as cited in the work of Gibaldi (2012), the best institutions of higher learning have clinched to diversity in teaching and learning, and have linked academic excellence, diversity and inclusion to their philosophy, vision and mission statements to an institutional cultures, both geopolitical and geocultural interdisciplinarity, supportive to the adoption of a unified international standard in higher education from a myriad of educational internationalization standards;
2. Since the development of the Bologna process dealt with the conception of a dichotomic classification of teaching and learning in university teaching contexts, it must be ubiquitous in higher education to focus on a research-driven instruction to sustain a community of inquiry among student-learners. In this sense, student-learners are invited to come across learning towards the realization of life-long learning. This dichotomic classification can be attributed to the dialogic paradigm of teaching and learning, which is an introduction of an educational prescription (introduced by Sackett (1991) as Sackett's Cube in Sackett, et al, 1995). On the other hand, it is worried that the adoption of the Bologna process posts a potential threat to academic freedom for many European universities and other countries that had accreditation to the British Education Council, one of the propagating arms of Bologna. The crux is: can homogenisation of higher education ever be a positive goal for academics? While European higher education as a whole may become more competitive on the world stage, it is feared that Bologna could also lead universities to lose their independence and individuality (Fearn, 2008).
3. In order to attain life-long learning, students must learn how to learn. In teaching student-learners in a student-centred instruction, teachers, as facilitator of student learning, should exude extra effort in the teaching-learning process as they play a critical role in reaping and reducing the drawbacks of the contrasting learning modes

of student-learner. Learning workloads, as well as activities and experiences inside and outside of the theory and laboratory rooms should be balanced and practical to inspire learning; practical application to real life problems in their chosen field of interests must be empirically considered in the instructional planning and design. Aptly, adult-learners are intrinsically self-motivating, so long as their basic needs are fulfilled: this has important implications for methods of teaching. Learners learn because they are interested and curious, sometimes because it is helpful to know a particular thing and sometimes just for the joy of discovering and understanding. Roger Neighbour (1992) referred to this natural curiosity and unstoppable desire to learn as the “Inner Apprentice”. He concluded that the teacher’s role was to provide both support and challenge for the learner, rather than simply passing on knowledge through didactic teaching. Hence, sustenance of community of inquiry among the student-learners within the context of dynamic teaching-learning climate; and

4. Holistic assessment and evaluation of student-learning must be made clear to student-learners in a dialogic manner. Dialogues bring feedback to a feed-forward mechanism in reshaping students’ schema and understanding in mastering concepts. In the case of Spain, Pastor (2011) concluded that assessment and evaluation of student-learning in the university-teaching contexts needs (1) greater student involvement, participation and motivation; (2) facilitates acquisition of independent learning competencies, and personal responsibility in learning process; (3) students learn alternative methods to assess learning; this is especially important when training professors, due to its direct application in future professional practice; (4) improves learning and academic performance; (5) greater knowledge on the part of the professor about students and their learning processes, as a result of improved communication and relations between professor and students. (6) promotes metacognitive processes, particularly with respect to self-assessment and peer assessment. (7) increases professor involvement, and allows for progressive improvement in teaching practices and contextual assessment.

The foregoing implications call for teachers’ dynamism in his classroom instruction in order to optimize his classroom teaching and learning environment. Hence, greater benchmarking should be done to come up with a common objective of the Bologna Process, the internationalization in higher education. Concomitantly, research should become the primary arm of instructional planning and design as it mends disparities of the dogmatic theories to real life situations and practice.

CONCLUSION

Based on the findings of the study, the following are concluded: (1) The Bologna Process bring forth the avenue to reshape the educational paradigm, to come up with a unified education system in enriching the European culture of academic climate and standard with the aim of internationalization in higher education; (2) Notional hours offers a balanced workload of both the teacher and students-learners as it becomes the integral part of outcome-based instruction. A stride to revert the assessment and evaluation of student-learning; and (3) the Bologna process and Notional hours proffer the act of harmonizing the triadic educational paradigm of the teaching-learning process in outcome-based instruction: (a) Learning Aims or course intended learning outcomes, (b) Methodological Plan and Tactics, and (c) Assessment and Marking Scheme.

FUTURE RESEARCH

Owing the scope, findings and conclusions of the study, the following research interests are forwarded: (1) The efficacy of outcome-based instruction and tactics through teaching heuristics, dialogic teaching and learning, and other classroom dynamics; (2) Analyses on the implementation of the benchmarked Notional hours of workload in improving classroom efficacy; (3) Faculty diversification in the university teaching contexts of internationalization in higher education; and (4) The efficacy of feedback as a feed-forward mechanism of dialogic assessment and evaluation.

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