Enhancing Teaching Through Innovation in the University: What Teachers should Know and Do.

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Abstract

Burgeoning literature in education have shown an affirmed resolve of educators to adopt modern productive teaching approaches to ensure maximum learning outcomes. There is indubitably a serious need for teachers in higher educational institutions to focus on ways of enhancing teaching and learning. However, few researchers appear to have focused on the subject. This working paper, by employing the narrative design, examined the teaching enterprise with emphasis on moving from pedagogy to andragogy as a harbinger for the creation of autonomous self-directed adults. The paper advocates for pragmatic teaching strategies for teachers at this level. It concludes that university teachers must necessarily take advantage of the-now-increasing avenues for knowledge nourishment widely provided by outstanding journals, conference, articles and scholarly books among other knowledge outlets. Teachers are urged to profiteer from the wide range of polished teaching options espoused and circulated via the media. It is the paper's view that implementing contemporary teaching methods is the only panacea to tackling the current phenomenon of qualification inflation that has virtually led to the reduction of the academic currency among graduates. The paper's firm belief is that with innovative teaching methods, teachers desire for excellence in the classroom is already a forgone conclusion.

Keywords: contemporary approaches; experiential learning, collaborated learning, Problem-based learning, student voice, active students participation.

BACKGROUND TO THE STUDY

Teaching in higher institutions of learning in Ghana is an arduous task due to the number of challenges that teachers in these institutions are confronted with. The expansive role of the teacher in contemporary times makes it even more imperative that teachers adopt proper teaching approaches in order to meet the ever changing needs of society. It is undeniably factual that as a society grows, its needs, norms, visions, aspirations and values change and this is why it is often said society is dynamic. The changing dynamics of society puts a lot of burden on teachers and their approach to teaching. The reason is that this brings to necessity why teachers should use rapid and innovative ways of teaching the younger generation for them to become productive members of the changing society. Teachers at all levels are the principal implementers of the curriculum which contains the society's vision of what they expect in the younger generation. In this vein, the teachers must constantly be aware of and be well equipped with new instructional methodologies in their quest to training the learners to be able to fit well into this dynamic world. As the world constantly advances, there is the need for a paradigm shift from out-of-date pedagogies to more active learning, student-centered learning, collaborative learning, experiential learning, and problem-based learning which have the capacity of making the learner worthwhile to both self and the world at large.

It is not usual to see graduates forming associations such as unemployed graduates associations. A situation that obviously had put every key stakeholder in a questioning position as to the type of knowledge and skills that these students acquire and what the expectations of society and industry are. Most studies conducted in the area of tertiary education and industry revealed that most graduates are unemployed due to several factors with the most persistent and principal factor being the mismatch of skills between tertiary curricula and job market skills.(Alfred,

Tsadidey, Ashiagbor & Baku, 2008; Patrick & Boateng, 2013; Twumasi, 2013; Oppong, 2013; Oppong, & Sachs, 2015). While some scholars, attribute this gap to the kind of teaching & learning activities that instructors engage their students in. others are of the opinion that, most activities today in a majority of classrooms in higher education continue to reflect an 'old' style of instruction where "students sit quietly, passively receiving words of wisdom being professed by the lone instructor standing in front of the class (Catalano & Catalano, 1997). Researchers (such as Blackburn et al., 1980; Costin, 1972; Eble, 1972; Thielens, 1987; Benjamin, 2002; Lammers, & Murphy, 2002; Twenge, 2009) underscored this fact by restating that, students lack of employable skills is as a result of how instructors teach, especially in higher education, where lecturing remains the most common form of instruction and accounts for the largest percentage of class time used. These worries have particularly emerged because although lecturing can be quite effective in delivering facts or information especially in large classrooms, it does not effectively equip students with creative, imaginative, analytical, critical, problem-solving skills that enable them see meaning and value of what they learnt, rather students are regarded as 'passive listeners' of information directed at them in the lecturing. (Bligh, 2000; Lammers & Murphy, 2002).

There is emergent empirical evidence of robust literature that support this argument of minimizing lecture method in the university classroom. We need a bridge between tertiary education and corporate world. Thus, this 21st century requires a paradigm shift from traditional lecture methods to non-lecture methods such as active student learning, collaborative learning, experiential learning, and problem-based learning which have the capacity of bridging the needs of society, industry and the economy. For instance, from the findings of GEA, 2006; Alfred, Tsadidey, Ashiagbor & Baku, 2008; Boateng & Ofori ,2012; Patrick & Boateng, 2013;

Twumasi, 2013; Oppong, 2013; Oppong, & Sachs, 2015), employers regard "Experience" as the highest factor they would consider in employing graduates or employees. The second factor Employers would consider necessary for offering employment into their establishment were the possession of Practical oriented skills; dynamic and problem solving skills, analytical skills; High Creativity; Resourcefulness; Quick learning skills; Excellent verbal and written communication skills, interest in new and emerging technology and the ability to work under pressure and maintain calmness in emergency, that make them competitive in the job market" The third factor they might consider was the possession of the requisite "Qualification. (GEA, 2006; Alfred, Tsadidey, Ashiagbor & Baku, 2008; Boateng & Ofori , 2012; Twumasi, 2013; Oppong, 2013; Oppong, & Sachs, 2015).

Undoubtedly, skills such as analytical skills; high creativity, quick learning skills; Excellent verbal and written communication skills, resourcefulness and interest in new and emerging technology, the ability to work under pressure and maintain calmness in emergency, which employers expect to see in employees (graduates) can adequately be addressed in instructions where instructors (lecturers) blend contents with contemporary pedagogies (collaborative, problem-based learning and experiential learning) such that they are able to engage students in activities that enable them to experience course content of what they have acquired and make students' lives more fulfilling (Boud & Feletti, 2007; Norman & Schmidt, 200; Duch et al., 2001; Hmelo-Silver, 2004; Barkley, 2005; O'Donell, 2006; Amador, 2006; Svincki, 2007; Loyerns, 2008; Smith, 2009; Roseburough & Leverett, 2011; Slavich & Philip, 2011). In consequence, in the context of implementation, the curriculum must expose the learners to the realities in the performance of tasks in the job (Spitzley, 1996). Education should make the learner live a life of contribution. In today global world of rapid evolution and high expectations

from both society and industry, graduates are expected not only to have particular knowledge base but also have the needed skills to be able to apply this knowledge to solve problems of different complexities in a more competent manner (Nonaka, & Takeuchi, 1995; Segers, 1996, Engel, 1997; Pojkela & Pojkela, 1997). A manner that only contemporary teaching pedagogies can address but almost impossible with the dominance of lecture method. Alfred, Tsadidey, Ashiagbor & Baku, 2008 underscored this when they indicated in their research findings that most universities in their pursuit to satisfy the skill training needs of society and industry, equip students with too much content knowledge, both simply and complex theories that they themselves wonder if these plenty contents and theories are the demands on the job market. They wonder if these content and complex theories are what students need to make life meaningful. In fact, a burgeoning literature showed that, efficacious problem-solvers have a well thought-out, flexible knowledge base and master the skills to apply this knowledge for solving problems in their daily lives (Chi, Glaser, & Rees, 1982). It is against this background that today's institutions of higher learning are challenged with developing and implementing a curriculum that equip students with the requisite skills to apply the knowledge gained in a more effective way (Dochy, Segers, Bossche Gijbels, 2003). Meaningful learning only takes place in a conducive environment, an environment that recognizes students voice and participation in the teaching and learning process (De corte, 1990, Honebein, Duffy & Fishman, 1993; Tynja'la, 1999), an environment that enable student to discover their true potentials and meaning in what they learn as students become self-directed, self-discovery learners (De corte, 1995; Ranson, 2000; David Jackson, 2005).

In this paper, we provide evidence based on empirical research to support the claim that, experiential learning, collaborative learning and problem-based learning provide students with

the needed skills such as analytical skills; high creativity, quick learning skills; Excellent verbal and written communication skills, resourcefulness and interest in new and emerging technologies and so should be embraced by teachers in institutions of higher learning in their pursuit to transforming students' lives wholly. Again, these contemporary approaches recognize students' voice, active students' participation in the teaching and learning interaction. Most importantly it bridges the gap between tertiary curricula and industry and above all equips students with the knowledge and skills that allow them to live a life of contribution to both self and corporate world at large.

Empirically based literature on contemporary teaching methods that makes learning meaningful to students.

Experiential learning equips students with experience, reflective thinking skills, practical skills etc.

Experiential learning is one of the major strands of contemporary teaching methodologies. Experiential learning happens when lecturers in the teaching and learning interaction engage students in activities that enable them to experience course content of whatever they learnt or are learning (Svinivki & Mckeachie, 2011). With experiential learning, students gain first-hand experience of whatever they learnt. If the saying that 'experience is the best teacher' holds then teachers must understand that, until their students get the chance to apply whatever concepts they have taught them, such students have no experience in those concept and therefore no meaningful learning had taken place. Experiential learning is one of the modern methods explored in efforts to address the demand for meaningful content experiences (Ernst, 2013). With experiential learning, much emphases is placed on allocating tasks that transpire outside the classroom, where concepts can be better incorporated into students' lives which

enable them see the meaning and value of what the learnt (Svinivki & Mckeachie, 2011). For instance having students observe a course-relevant phenomena or behavior gives them the opportunity to gain a first-hand experience. These way students learn to appreciate whatsoever they are learning or had learnt. This approach also relates theory to practice. In addition, giving students the opportunity to conduct interviews or experiments, play games or simulations, or keep a reflective journal gives them the opening to gain experience (Cantor,1995; Moon, 2004; Beard & Wilson, 2006; Kolb & Kolb, 2005; Kayes, 2005). Journaling permits students to go further than the knowledge gained through a traditional lecture hall, it enhance their personal growth and development (Hiemstra, 2001). These reflections that students experience as they go through the journal helps transform their current knowledge gained into new knowledge (Moon, 1999; Lockyer, Gonddoez, & Thievierge, 2004). Just allowing students to sit in lecture hall and are fed with copious notes without them having any inputs or interaction with the information makes them no absorbable members of the society. To some extent, not all courses will allow for experiential learning but the truth is that 'Give a faculty almost any kind of a class in any subject, large or small, upper or lower division, and they will lecture' (Blackburn, Pellino, Boberg, & O'connell, 1980, p. 41). The implication is that, most lecturers do see the lecture method as the most appropriate teaching method for any course regardless of other avenues.   For adults learners, learning makes no meaning when they cannot easily relates what they learn to real life situations. Adult learners see learning as more meaningful, valuable and more fulfilling when they can easily apply it in their daily life. Off-course "we don't learnt what we know, we learn that which we don't know". Universities and lecturers have a sole responsibility to design activities that will develop students wholly because these are places of higher learning (Moore, Boyd & Dooley, 2010).

As individuals, we are constantly faced with complex problems, problems that demand new and multifaceted ways to solving them. If what adults learn in class has nothing to do with reality then they are handicapped when faced with real quandary situations that require direct application of learnt concepts in school. From this perspective, teacher should constantly design their instruction around activities that enable learners to apply knowledge and skills learnt. Devoting about majority of the instructional time lecturing on concept that could easily be understood with an activity or practice experience is appalling. Thielens (1987) surveyed over 800 faculties at 80 institutions. The discovery of this survey showed that generally, majority of faculties reported that 80 percent of class time was devoted to lecture. If this discovery is true then one would wonder the amount of time that would have been saved if these lecturers were privy to modern teaching methods like experiential, collaborative, problem-based learning with active student participation among others. In addition, the research findings of Higher Education Research Institute (HERI, 1999) showed that, about 56.5 % of male lecturers and 32.3 % of female lecturers recounted they use extensive lecturing in most or all undergraduate classes. This also point to the fact that, lecture method still dominates most of our university education (Blackburn et al., 1980; Costin, 1972; Eble, 1972; Thielens, 1987; Benjamin, 2002; Lammers, & Murphy, 2002; Twenge, 2009). But agreeably in today world of complex problems, learning should be the interaction between the teacher and the learner that permeates direct experience with the learning situation and content (Itin, 1999). These way learners will be inspired by the experience to engage in reflective thinking which allows them to gain deeper knowledge, develop skills and abilities in the process (Dirkx & Lavin 1991). Even within an organizational environment, experiential learning can still occur by focusing on individuals "practical judgment" of the workplace context (Beckett & Hager, 2000).

Collaborative learning equips students with critical & analytical skills; creativity, communicative skills etc.

Another teaching method that has recently gained grounds in the parlance of modern teaching methodologies is Collaborative learning. Collaborative learning is premised on the proposition that individuals learn best when in groups, ranging from small groups to large ones (Johnson & Johnson, 1974; Slavin, 1977, 1995). Advocates of this methodology believe that by simply engaging learner with the colleagues where they work in groups is more dynamic and interesting than when learner is allow to work alone (Svinivki & Mckeachie, 2011). The implication is that, when the learner is made to be on a learning task independently, the tendency of getting bored on the task is very high. Thus, learning eventually stops at the point where the lone learner has finished analyzing his/her own version of the task/issue. This is not the case when learning is made to occur among groups where the learner listens, analyses, synthesizes and critically examines the views of others. This puts the learner in a more dynamic learning environment in that, issues are analyzed from different perspectives. Collaborative learning inspires students to reorganize their own knowledge and understanding of concepts learnt (OBox etal, 2000; O'Donell, 2006), this approach enables students to recognize gaps in their understanding (Cooper, 1999; OBox et al, 2000). By implication as the learner is made to work in groups, the student learns to appreciate the views of others and new ways of solving issues through divergent, convergent and thought provoking questions rose in the group. As Smith et al (2009) rightly put, that collaborative learning promotes social modeling of effective problem-solving strategies. This means students begin to put-on different lenses when solving a single problem. When teachers employ this pedagogy, their students begin to synthesize, communicate,

and discuss ideas in ways that advance their conceptual understanding of issues (Dillenbourg, 1996, 1999; Barkley et al, 2005). With this approach, the teacher's key role is to assign learners learning task in groups where they solve these problems in groups and those that finds it difficult to solve their problems are equally inspired to contact other groups (McManus, 2005; Webb, 2009; Kuh et al, 20210; Osbome, 2010) because collaboration involves the "... mutual engagement of participants in a coordinated effort to solve the problem together." (Dillenbourg, 1996, 1999; Roschelle & Teasley, in press). Meaning learners are actively involved in the learning task because each wants the voice to be heard. This pedagogy of voice allows students to discover self, develop self-understanding and self-worth as well as develop their capabilities and potentials (Ranson, 2000). So as students participates in groups, raise and answer divergent, convergent and thought provoking questions in solving problems through collaborative learning, their skills such as analytical skills; high creativity, quick learning skills; Excellent verbal and written communication skills are greatly developed. With the advent of modern technology, teachers can easily facilitate collaborative learning among students (Curtis & Lawson, 2001; Kreijns et al., 2003). On the contrary, with traditional approaches like the lecture method which still dominates most of our university classrooms today is often less effective for promoting thoughts, changing attitudes and developing behavioral skills of students (Bligh, 2000). For instance, from the findings of Catalano & Catalano (1997), in this teacher-centered called lecture method, students are mostly disadvantage in that "students sit quietly, passively receive words being professed by the lone instructor standing in front of the class." (Catalano & Catalano, 1997). By implication, students are made to put their thinking capability to rest. So the question is what would learners take home? A contemporary teaching method like collaborative learning solves this problem for Collaborative learning has a strong impact on the critical thinking skills

of students through their involvement in discussions, debates and assessment of diverse inferences (Mandusic & Blaskovis, 2015). these acquired critical thinking skills allow students to make a distance from some of their beliefs and prejudices and to realize their own logical conclusions about what they do (Bjelanovic Dijanic,2011).Students must be given the right to opinion because this ensures that, they take responsibilities for their own actions in the teaching-learning process which culminate in higher level of achievement, increases their problem-solving skills and emboldens a positive influence on the strengthening of their personality, a personality that is worthwhile for future learning (Laister & Kober, 2005; Mandusic & Blaskovis, 2015)

Problem-based learning equips students with practical, higher-order thinking and problem-solving skills etc.

With problem-based learning, students are given the chance to interact and solve problems of vary difficulty within groups and independently. Designing the course in a way that allows students to solve these problems in groups beef up their interest in the course because they realize that they are learning the skills needed to be successful in the corporate world (Goodenough, 1994). It is significant to point out that, almost any course can be designed around problem based learning even though the course content and structure of problem-based courses might differ, their over-all goal and learning objectives are virtually the same (Goodenough, 1994). That is, Problem-based learning is utilized across countless diverse educational levels and disciplines, and literally hundreds of activities have been designed for this methodology (Barrows, 1996). Teachers must constantly be abreast with these activities in their pursuit to transforming students' lives. This is so because problem-based learning thrives on the assumption that, learning is an active, integrated and constructive process influenced by social

and contextual factors (Barrows, 1996; Gijselaers, 1996). By implication, learning should be such that students voice are heard, they are actively involved in the teaching-learning interaction where they interact with the material. This is to say we learn by 'doing' and that if students are made to solve problems either in groups or alone, they become increasingly aware of the different strategies used in solving such problems. Students solves problems by first engaging their thinking know-hows regarding what they already about the problem, what they need different in solving the problem and alternatives to solving the same problem (Gijselaers, 1996, (Goodenough, 1994). These way students develop a variety of skill and become problem solvers as well as directed learners.

When groupwork is view as an integral part of problem-based learning, learning becomes more meaningful to students' lives because by allowing students to solve problems in groups helps to create a conducive learning environment where students begin to feel comfortable as they develop their own new ideas and raise questions about the problem they are solving (Allen, Duch & Groh,1996). To add to that, groupwork enable students to develop their communicative skills and other skills that permit them to cope with group dynamics (Duch et al., 2001; Hmelo-Silver, 2004). Solving problems in groups equally beef up students motivation and help sustain their interest in the learning process as they become actively involve and everyone wants the voice to heard. Here there is collective responsibility (Cohen, 1994; Loyerns, 2008; Smith, 2009). It is worth mentioning that, students learn the skill of tackling a singly problem especially open-ended problem from diverse strategies/methods (Shelton & Smith, 1998). Problem-based learning arouses students' higher-order thinking capabilities in a manner that is focused on real-life problems (Ibrahim & Nur, 2000). Depdiknas (2002) probably motivated by the findings of Ibrahim and Nur proposed that, problem-based learning is an approach that uses real-world

problems as a framework for students to learn about critical thinking skills and problem-solving skills. Herman (2006) in support of these scholars asserts that, through problem-based learning, students are trained to able to think flexible, find inference, solve problems with mutual procedures. Rusman (2012) from his findings concluded that, Problem-based learning optimizes students thinking skills through a process of teamwork or groupwork, he added that, in this process student are empowered to float their thinking capacities on a continuous basis. All this discoveries reinforces that need for these approaches in our modern day teaching and learning. Accordingly this approach encourages teachers to assume the role of facilitators and coaches as they guide their students in the teaching and learning interaction (Boud & Feletti, 2007; Norman & Schmidt, 2000; Duch et al., 2001; Hmelo-Silver, 2004; Barkley, 2005; O'Donell, 2006; Amador, 2006; Svincki, 2007; Loyerns, 2008; Smith, 2009; Roseburough & Leverett, 2011; Slavich & Philip, 2012).

CONCLUSIONS

In fact, a rapidly increasing literature in education at all levels now point to the fact that, in order to realize the maximum benefits and outcomes in our educational enterprise, serious attention must be given to enhancements in teaching and learning interactions. Teaching learning methods that pay keen attention to the student voice and active students' participation in learning. Remember, in every teaching and learning process, it is what the learner does which he learns and not what the teacher does. Even from the theory of andragogy which in the view of Knowles (1973), is the art and science of helping adults like university students learn, has taken on a broader meaning since its inception. Thus, adult are self-directed and expect to take

responsibility for their own actions and inactions. The implication is that, for adult learners like university students take responsibility for lives, they must have a say, a heard voice and be actively involved in what-ever they do. Similarly if students are constantly made to actively participate in the learning where they are aware that their views and or voices would be heard, then they would equally engage their thinking capacities in the teaching-learning interaction. If they are encouraged to work and solve problems in groups and given the chance to experience the course content of what they learn, the educational goals will be maximized. This will give them the opportunity to develop skills such as analytical skills; high creativity, quick learning skills; Excellent verbal and written communication skills which employers are looking for hence making them productive them of our society. It will equally enable students to live of contribution to self, industry and society. Teachers in institutions of higher learning can employ these contemporary approaches with ease because there have been a growing number of seminars, conferences, scholarly articles and journals as well as books committed to these teaching-learning methodologies. Teaching pedagogies which see students as active participants of the teaching and learning interaction. These methods have also proven to be effective (Bonwell & Eison, 1991; Johnson et al., 1991; Johnson & Johnson, 1993; Millis & Cottell, 1998; Slavin, 1989–1990; Fies & Marshall, 2006; Michael, 2006; Rosebrough & Leverett,2011). In addition, with these outstanding journals, conference, articles and scholarly books etc., university teachers now have a wide range of options "toolbox" to choose from regarding teaching pedagogies when preparing to engage students in teaching & learning process. The era when teachers use to concern themselves so much with assisting students master course contents had elapsed. The era when the achievement of their cardinal objectives were been judged according to the number of grades ('A's or 'B+'s) students made in exams and not the skills students had

acquired are far gone. That era has passed and accordingly trend have changed, so teachers' prime objectives are now geared towards improving students self-regulatory capabilities (Boekaerts, 2002; Zimmerman & Schunk, 2011), involving some combination of increasing students' academic self-efficacy (Capara et al. 2011; Marsh &Martin 2011), enhancing their feelings towards learning (Duncan & Arthur, 2012) and instilling in learners values and skills that promote lifelong learning (Aspin et al. 2012). Several robust studies have now shown that students demonstrate more learning, better conceptual understanding, superior class attendance, greater persistence, experience, employable skills, increased engagement and applicable skills when collaborative, problem-based, experiential or interactive teaching methods are used compared to when traditional lecturing is employed (Prince, 2004; Dahlgren et al. 2005; Knight & Wood, 2005; Saville et al,2006 ; Armstrong, 2007;Armbruster et al.2009; Presz;er. 2009; Desclauriers et al. 2011; Freeman, 2011; Haak, 2011; Ueckert, 2011, Andrews et al. 2011).

RECOMMENDATIONS

As a sequel to the abovementioned points, we suggest that:

1. Authorities in higher education institutions must, as a matter of importance, provide opportunities for their teachers to educate themselves via workshops, conferences, and peer-based career development platforms so as to enable them appreciate the need for a paradigm shift in their teaching methods (pedagogy). The methods must be geared towards producing 21st century students who are with the requisite competencies to lead the agenda for change: societal development and transformation. This helps ensure that teachers in these institutions

adopt best practices that guarantee production of quality man-power who are ready to contribute to societal reconstruction and transformation.

2. In an era of massification of our universities, student numbers are becoming increasingly overwhelming. To remedy this situation, going forward is to infuse technology into the teaching and learning process. In this regard, government should provide funds for the procurement of gadget necessary to ensure the take-off of technology in our institutions of higher learning. Institutional authorities and other stakeholders in higher education must help teachers to deal with the menace of huge student numbers that seem to water down quality teaching. Projectors, e-learning platforms, other virtual learning forms should be introduced to help teachers deal with this educational conundrum.

3. Finally, teachers must take their destinies into their own hands. They must take the issue of continuous professional development seriously. In the apparent absence of refresher course opportunities for them, they must on their own, learn continuously and be abreast of new teaching methods so as to also be on top of issues in their fields of specialization. If this happens, their desire to excel in the classroom and to produce excellent students for the world of job will be a fait accompli.

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