



Review

# Inventive approach in teaching and learning for higher Institutions

Daniel Edenjevy

University of Venda

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Conventional assessment methodologies in higher education are increasingly under the spotlight and it is uncertain in certain circles, if traditional methods are in fact as effective as they are believed to be. Since the quality of education is critical to a nation's success, it is important to interrogate a number of strategies and methods. The application of innovative teaching and learning methods is critical if we are to motivate and engender a spirit of learning as well as enthusiasm on the part of students, for learning while at universities and indeed for lifelong learning. The role of education is to ensure that while academic staff do teach, what is taught should also be intelligible to students emanating from culturally and linguistically diverse backgrounds and that they rapidly become familiar with the expected standards. It is more often than not the case that students underachieve because of the fact that they have not grasped an awareness of the level of assessment or what it is that the lecturer expects from them. Lecturers should thus apply themselves to utilising innovative methods so that the students' learning process is as free-flowing as possible and that the methodology they adopt is conducive to learning. Innovative teaching and learning methodologies such as short lecture, simulation, role-playing, portfolio development and problem-based learning (PBL) are very useful in addressing the rapid technological advances and developing workplaces that will be required in the foreseeable future. This article which is important in the broader transformation debate in higher education, focuses on skills that can strengthen language acquisition and content knowledge for students. PBL *INTER ALIA*, is promoted as an innovative teaching and learning methodology that is highly relevant and meaningful and worth utilising.

**Keywords:** Inventive teaching and learning, short-lectures, role-play, simulation, portfolios, problem-based-learning.

## INTRODUCTION

Education is a very powerful instrument for social change and transformation and innovative teaching practice is the only way to enhance the quality of our education. The problems which society faces are essentially the problems of educational institutions which are required to be innovative as they teach new skills and develop new insights and approaches towards the solving of social problems which the nation faces. Students must be empowered to be able to withstand the global challenges of the 21<sup>st</sup> century. The Oxford Dictionary defines innovation as "the introduction of novelties, the alteration of what is established methods" which is what this article strives to do. A key performance indicator of any education institution is the education quality in especially

teaching and learning areas. As the destiny of South Africa is currently being shaped in the lecture room, education has a number of important aims. In terms of the social constructivist paradigm, learning is a social process which is neither limited to an individual, nor is it passive. Meaningful learning only takes place once an individual is engaged in social activities (Jackson et al., 2006). These include developing the capability of students to use ideas and information, testing of ideas and evidence, generation of new ideas and evidence, facilitation of personal development and development of a student's capacity to plan and manage their learning experience. Critical faculties are thus developed so that students begin to ask important questions rather than

simply answer questions. The level of teaching effectiveness is a question that plagues higher education for a number of decades (Braskamp, and Ory; 1994). Centra (1993), defines effective teaching as “that which produces beneficial and purposeful student learning through the use of appropriate procedures” which is an aspect that this paper is seeking to address. What constitutes effective teaching? Braskamp and Ory, (1994) include both teaching and learning in their definition: “creation of situations in which appropriate learning occurs; shaping those situations is what successful teachers have learned to do effectively”.

Lecturing is a communication between two or more persons who influence each other by their ideas and learn something in the process of their interaction with one another. Lecturing is thus a complex, exciting, challenging and interactive skill whose main aim is to create a learning situation in which knowledge is imparted and in which understanding and skills are developed. Students are motivated to explore the discipline they have selected. Unfortunately many students fail to complete their studies at university but may still benefit from skills that are developed while at an institution, especially the confidence they obtain from new life experiences (Quinn et al., 2005). What is required for all students, even those that drop out, is deep rather than surface learning.

There are a number of traits required of the innovative lecturer which include humility, courage, impartiality, open-mindedness, empathy, enthusiasm, judgement and imagination (Hare, 1993). It is these lecturers who will infuse deeper learning in their students. Brockbank and McGill (1998) refer to reflective practice and learning and provide numerous examples of reflection in action by both academic staff and students. The focus must shift from ‘talk and chalk’ to how students learn and lecturers need to instil a deep approach to learning by giving

students varied innovative stimulating learning environments in order to create a deeper learning. Learning should be the result of lecturer motivation and facilitation and the students’ learning-focussed activities in which they are engaged and for which they assume ownership (Biggs, 1999). This is why it is imperative that all lecturers seriously engage in reflective practice and experiment with innovative methods where required. They should strive to use personalised strategies to teach and actively engage learners in course content. Stensaker (2008) argues that in order to achieve quality teaching and learning, greater attention must be paid to teaching and learning practice. It is clear that traditional methodologies of ‘talk and chalk’ which are teacher centred are not adequate for current students and that effective teaching and learning is not taking place at the desired level (Race, 2003). High-quality learning outcomes are achievable provided that students assume greater control over their own learning (Boud, 1990). This

notion is supported by Falchikov (1995) who maintains that greater student involvement in self-assessment and that of their peers is beneficial to them. Students must be immersed in authentic curriculum contents and tasks that are demanding and relevant to their lives and futures (Crosling et al., 2008).

### **Current status**

Sadly, many lecturers have adopted conventional method of teaching and learning. The teaching is mainly based on the syllabus and prescribed textbooks. In many lecture rooms, teaching and learning techniques are outdated and theoretical knowledge is still disseminated through the technique of talk and chalk. Learning is a process which should produce desired changes in the behaviour of students. Consequently, the learning situations utilized in the lecture rooms are important for the understanding of the concepts taught. Learning occurs place when insight is gained, and when the processes are understood, in short when interaction has taken place between the lecturer and the learners and between learners and their peers. Some lecturers still believe that knowledge is transferred to their students, but in reality students learn by doing and this is reinforced by the use of innovative teaching methodologies. However, it seems that when lecturers try to be innovative in the learning environment, many fall short, and students thus often prefer to be assessed in a conventional manner. Innovative methods are thus perceived to be a stumbling block for them. Students complain that some assessments do not in any way measure their real learning and what they are assessed with is irrelevant to the real world of work (McDowell and Sambell, 2003). It is the task of a lecturer to facilitate learning and to motivate, encourage and mentor students to achieve academically with the use of innovative methods and to generally promote interest in their subject which should go beyond the our walls of a lecturer room. Students need ample opportunity to share ideas with the lecturer as well as with their peers and this becomes difficult if nigh impossible especially with large groups of students in one class.

Each discipline undoubtedly has unique challenges as well as advantages and opportunities when it comes to innovative teaching. The development of student learning in higher education in the context of teaching and learning is currently a global cause for concern. The large class sizes have led to an increased movement towards a mainly lecture methodology for teaching which has led to far less interaction between students and lecturers and learning quality is thus compromised (Kezar and Kinzie, 2006). What is required is student centred conceptual orientation via the acquisition of problem-solving skills rather than an overloading of students with only

information. Self-learning in Higher Education is critical in understanding similarities and differences in liberal learning and classroom learning (Tousanides and Antoniadou, 2008) as it improves both interpersonal as well as group skills and also builds knowledge. It is also important to teach students to understand the global village in which we live and to consider things holistically (Rothwell, 2008). Problem solving is an important aspect here.

Hospitality and tourism education, for example, requires problem-solving skills more so than problem-based learning. As graduates from these disciplines interact with the customers on a daily basis, they need to be able to solve problems effectively and efficiently. Teaching methodology should thus include this aspect which provides a more effective opportunity for students to assimilate and make sense of what they are taught pertaining to their future world of work. A step-by-step logical problem-solving methodology is needed in hospitality and tourism education. By presenting students with case studies relevant to their industry, they are obliged to become problem solvers who then obtain useful knowledge via bounded problem solving. The lecturer's task is to mentor and guide the student to the correct application of knowledge and an arrival at a workable solution to a problem, be it of an ethical nature or practical workplace scenario. In whichever problem-solving approach to education, the lecturer is invariably the process guide and a facilitator who is tasked with steering students to the right knowledge as well as solution to a problem.

### **Innovative short lecture methodology**

An innovative teaching and learning methodology which is not often utilised in hospitality and tourism education is a short lecture introducing a problem solving case study, of say 20 minutes, followed by vigorous debate and discussion on the part of students who are organised into groups and who interrogate the responses of fellow students. Student involvement is essential if learning is to be successful. The lecturer as the facilitator is tasked with guiding and promoting student interaction. In classes where I have utilised such a methodology, students become active team-players and role-players. There does need to be prior knowledge on problem-solving and critical thinking techniques in order for this approach to work. It has been shown that interactive teaching is superior to didactic teaching and that the former greatly improves academic success and promotes the inclusion of students who generally feel like outsiders (Crosling et al., 2008)

Students need student-centred and active learning that is associated with experiential, problem based and project based learning. Collaborative learning is desirable

and there should be far less reliance on the large lecture format that is followed by most lecturers. In fairness to many academics, the institutions often accept more students than they should so as to obtain greater state funding and the result is huge classes that only large lecture formats can accommodate. Nothing can however replace the vital aspects of staff-student and student-student interaction. Individual learning is however still very important. Lecturers should also not fail to focus on developing tourism and hospitality students' social skills, especially as they will be working with guests from across the globe. Ethics, social and cross-cultural skills, in the context of the tourism and hospitality professions must assume greater importance in teaching content.

### **Simulation and role-playing**

In these methodologies, the idea is to create a workplace scenario that students could encounter in real life. Such a method will allow students to develop their social skills which are essential for the tourism and hospitality industries. Role-playing and simulation promote an evaluation and synthesis of the teaching material while practically allowing students to learn something by 'doing something'. The lecturer needs to lay down firm ground-rules for student involvement so that the exercise does not become theatrical. It must be emphasised at the outset that it is an opportunity to participate in the learning process and that their participation will increase their sense of belonging, motivation and achievement (Askham, 2004).

Simulation of scenarios and interrogation of case studies, involving staff and guests in hotels and other tourism operations, are useful in problem-solving and in developing the argumentation and analytic skills students that students require in the world-of-work. Such exercises promote understanding and deep-learning that are the prerequisites for long-term knowledge acquisition (Denbo, 2005). This methodology does require planning by the lecturer who must have clear objectives regarding the learning outcomes. Student preparation may be required for certain simulations and role-playing. Lecturer assessment as well as peer and self-assessment may be used to evaluate student understanding. It is important to note that these techniques allow for greater student self-reflection while simultaneously also enhancing other areas of the learning process. Lecturer and peer feedback are important in assisting students to develop their problem-solving skills and strategies.

### **The learning portfolio**

Portfolio assessment and peer marking promotes self-directed learning and improves the quality of student

learning. According to Cole (1995), the greatest benefit of portfolio assessment is to allow students to assume greater responsibility for their learning. Belanoff (1994) states that this modality of assessment motivates students, provides them with feedback, is diagnostic in that it shows students their strengths and weaknesses and finally sets the student's level of attainment at the end of any given course. This is an accepted innovative assessment tool and a way of learning that is utilised in South African education. Students are tasked with collecting, analyzing and select representative samples of their work which are relevant in their course for evaluation purposes. They compile, maintain and submit a personal portfolio according to prescribed guidelines, accompanied by a reflective short essay of roughly 500-1000 words along with their portfolio. The items in the portfolio that they create in the course of the semester, includes what is learned in theoretical lectures as well as practical classes and in some cases during Work-integrated Learning (WIL) which is often over a six month period in industry.

The created portfolio which is labour intensive, makes learning visible. Students collect and assimilate the required work and prepare the evidence of work done and then receive feedback from the lecturer. In many cases, parts of a portfolio may be peer-marked. The written evidence they present for evaluation speaks volumes about the students' deeper understanding and improved critical thinking skills (Zubizarreta, 2009). Some of the components of the portfolio could include evidence that research skills are improving, reviewing of academic articles from predetermined academic journals or popular journals such as Restaurant News or China Tourism, for example. Much creativity and innovation is required by students who demonstrate their understanding of their course content. The lecturer must however be careful not to overload the students and provide useful feedback. The portfolio could be daunting for many students. Consequently the lecturer must be well prepared and clearly explain what is required and why.

### **Problem-Based Learning (PBL) for Hospitality and Tourism students**

Problem-Based Learning (PBL) for students is a flourishing approach to learning that is extremely useful in promoting critical and analytical thinking, and in addressing the rapid technological changes and dynamic workplace of the 21<sup>st</sup> Century. PBL is founded on an unconventional pedagogical model when viewed alongside the conventional didactic one and it offers greater benefits to the quality of student learning (Greening, 1998). This approach to education suggests a strong role for factors such as authenticity, as well as

student independence, and is principally associated with the encouragement of deep learning (Sutherland, 2009). In this approach, a range of selected constructive problems are designed by the lecturer to address the desired learning outcomes. These problems may be influenced by community and contextual factors. It is assumed that most students already have basic conceptual knowledge. PBL is an approach to learning that incorporates relevance and complexity of thought and it also provides an opportunity for self-assessment and continuous improvement on the part of the students. As in the problem-solving approach described above, students seek out solutions to problems and are able to develop a sense of ownership for their work. This also promotes self-esteem as students acquire important discipline knowledge by their own initiatives and the students take ownership of their education (see figure 1).

Unfortunately, lecturers are often resistant to changing their methodology and this reflects fear, insecurity and ignorance. They prefer to be knowledge-providers and to be seen as experts. In PBL they are neither and now have to handle group dynamics and become anxious but this should not be the case as PBL is a very useful didactic operating strategy. Course content is introduced in the context of real world-of-work problems that students are likely to encounter at some or other time during their careers. The student learns by means of self-directed learning strategies which may be either independent or collaborative or both. Student-generated questions are encouraged as lecturers monitor student content knowledge. The problems that are presented for solving must be engaging and interest the students. The students must have reasoning ability which they can support with evidence which is in tandem with the learning objectives of the course. What is important is that no one answer to a problem should be the only correct one. The traditional roles of the lecturer and student essentially swap, and the focal point of the methodology is student centred as opposed to lecturer centred. PBL is a very active style and students assume greater responsibility for their learning as they create meaning for what they are guided to. The lecturers facilitate, mentor and also evaluate the students' progress. What makes PBL unique is the fact that it is self-directed learning and addresses challenges and seeks solutions to problems using strategies that are encountered on a daily basis in real life experiences in the industries concerned. Students either individually, or in groups, acquire improved language and subject matter skills and knowledge, and become more proficient in problem-solving. It is clear that global education requires some *"high-level universities that can talk and exchange with world-class universities and can also cultivate people who have international vision, open minds, reformed spirits of innovation and formidable intelligence"* (Liu, 2010).

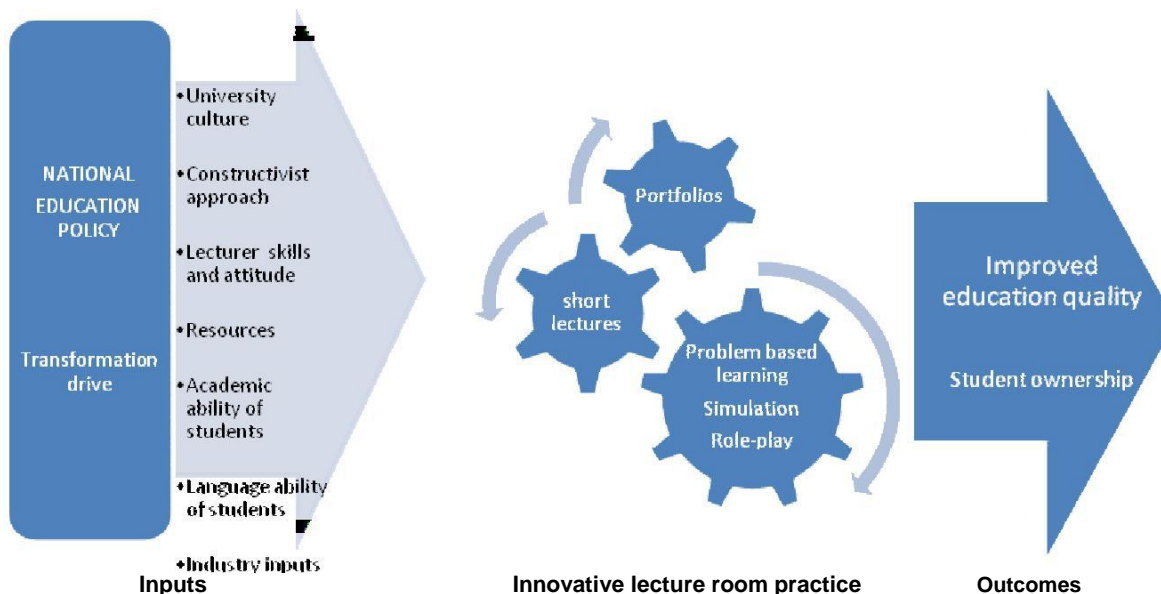


Figure 1. Innovative practice model

In PBL, the course of students' inquiry is not predetermined, but rather develops directly from students' beliefs and questions on what they are investigating. Students are motivated to undertake additional exploration that was initially not intended. As in any methodology used, it is crucial for the lecturer to employ well organized and thoughtful questions etc., that lend themselves to the level of ability and cultural background of the student. The role of each student needs to be clarified at the outset and the composition of a group of students that will be participating in activities must be carefully considered in terms of composition, balance, cultural background, academic ability, gender, language ability and socio-economic background. Where there is student-centred, group and discussion based learning, enhanced student participation and interaction are promoted.

Students are more willing to express their ideas and they experience deeper learning as they are able to test out new concepts (Warren, 2003). Reserved students may find PBL challenging because it creates space for them to become further withdrawn because they do not feel capable of competing with academically stronger students or personalities within the group. This is where the lecturer needs to be alert and encourage and motivate student participation. However, once involved, students soon develop a sense of ownership for their work and contributions. In tourism and hospitality classes at Vaal University of Technology, where there are numerous African francophone students, it is often difficult for students to follow a lecture coherently. Many become lost in a language they have limited skill in.

PBL also supports language acquisition skills as students are often called on to try to express their

opinions in group communication and this strengthens their English language skills. Since language is linked with course content knowledge, PBL reinforces language skills and learning as the group discusses questions and problems that require solving (Krashen, 1988). PBL thus creates a learning environment that is bursting with discussion and debate, and in which individual intellectual curiosity is the driving force for the learning of the student. Students solve real world problems and also discern important concepts and how these are interconnected. The teamwork aspect cannot be understated as students are able to analyse problems and identify and discover required information by asking and answering questions. Teamwork is promoted as they share their research findings, and generate and evaluate possible solutions to problems posed by the lecturer and their peers. Students are also able to define what they do not know and to seek answers.

Seeing that it is more student-centric, PBL motivates and excites the students to learn. They begin to play an active role in analyzing aspects for an assignment. When lecturers present students with real-life situations, it enhances their problem-solving skills as opposed to providing only a theoretical conceptual framework for them. The students use prior knowledge to solve new problems, and this ensures a deeper understanding. Since PBL requires a collaborative approach towards problem-solving, it fosters an environment in which the students learn to perceive various approaches to solve problems through teamwork and vigorous group interactions. The nature of PBL means that it demands a unique relationship between the lecturer and the students. This allows the students to determine their course of action to a degree with the help of the lecturer,

thus making the learning process far more interesting and engaging.

## CONCLUSION

Any innovative teaching and learning method is not a quick fix or universal remedy. It cannot replace a traditional teaching methodology in education but rather supports it. However it is clear from the literature, that innovative teaching methods do provide students with greater experience in dealing with the world of work related issues they encounter. Innovative teaching methodologies will lead to a learning society in which the creative and intellectual abilities of students will allow them to meet the goals of transformation and development.

Where students claim to experience problems with assessment, the general argument is that the lecturers have not adequately explained what is required of them. Other student problems include excessive workloads and insufficient feedback. Lecturers need to consider these aspects when adopting any methodology. Given the constructivist nature of the PBL approach, there is a larger retention of knowledge and students enjoy their learning experience far more than in traditional approaches-course content is understood more thoroughly. Bauer et al (2008) found that students enjoyed the real world of work issues and teamwork aspect of PBL. They also and felt welcome in the classes and stated that their learning was enhanced as PBL augmented their ability to consider, evaluate, and respect diverse viewpoints. Foreign language students also learn more during PBL activities. PBL is indeed a model that meets the needs of society by enabling our students to make positive contributions to society through a collaborative approach to learning that spotlights problem-solving and communication skill development through a number of self-directed learning strategies and teamwork as highlighted above. By integrating skills, students are able to become self-motivated and develop an ability to think independently, while working with others in a team. Problem-solving strategies are interrogated and developed.

The use of the short-lecture, simulation and role-playing, and the submission of individual student portfolios, undoubtedly support traditional methodologies and should also be utilised more. Education for the future requires that we explore as many varieties of models and teaching methodologies as possible. We need to remain cognisant of the culturally and other specific needs of our students and must not underestimate the influence of technology such as the internet in promoting quality teaching and learning and in enhancing education in general. Given the nature of our students, we should seek to pursue an agenda of social

justice to guide all teaching methodologies and practice. There is no Eurocentric or other blueprint for South African education which can be passed around from nation to nation, but we hopefully possess enough knowledge to understand that an educational system based on the equitable treatment of all students in the cultural melting pot that is South Africa, is a moral necessity, but is also politically, socially and economically beneficial for our nation.

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