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***Developing a practical model for effective teaching: Equipping lecturers to better communicate course content to first year university students***

### **Aim of the project**

South African higher education institutions find it increasingly difficult to deal with school-leavers who are ill prepared for higher education. Institutions are obliged to meet national goals in terms of access and increased pass rates. However, the hard realities of educational back loop are difficult to deal with (Hay & Morals, 2004). Some of the initiatives that have been put in place to respond to these challenges include a national effort to fund academic development programmes, a proposal to extend most degree courses with an additional year (CHE 2013), a growing body of research on academic literacy (e.g. Boughy 2005; van Wyk 2014), and the implementation of the National Benchmark Tests to guide student placement. However, the need to adjust teaching strategies in subjects students take as their majors has not been adequately placed in the foreground. Feldman (2016:65) argues that good educators and their pedagogies make the greatest difference to students' learning in higher and tertiary institutions, particularly for those students from disadvantaged backgrounds. The ability of educators to adapt their pedagogies to accommodate the learning styles of students is vital to the success of the students. Active exploration, construction and learning while solving problems in groups are more effective ways to guarantee student success rather than passively attending lectures and reading from a textbook (Norman & Spohrer: 1996).

Within the South African context, many authors are realizing the necessity of student centered learning and the role it plays in supporting students (Arko-Cobbah 2004, Vavrus, Thomas, and Bartlett 2011 & Mahlobo 2013). While student centred learning includes making the student responsible for his/her own learning and students are taught how to learn and solve problems, either on his/her own or in collaboration with others (Jones, Valdez, Nowakowski & Rasmussen 1994), placing the student in the centre of the

learning environment also includes creating learning material to support the student's individual academic needs. Following the launch of the Academic Facilitation Sessions (AFS) project in the Faculty of the Humanities at the University of the Free State (UFS), researchers found that the student centred application of course content during the AFS greatly improved student performance and success (Naudé & Bezuidenhout, 2013). Furthermore, students participating in support programmes at UFS repeatedly claimed that the use of alternative learning strategies improved their comfort in their engagement with complex theory (Naudé & Bezuidenhout 2013:15).

Despite international and local awareness of the need for and effectiveness of student centred learning, little effort has been made to implement these learning strategies at the classroom level. Strydom, Hen-Boisen, and Yeld (2017) found that, though South African lecturers acknowledge the importance of student centred learning, most lecturers reported that they spend little or no time on student centred activities in their modules (Strydom, Hen-Boisen, & Yeld, 2017). The authors concluded that more effort is needed to better support new and experienced lecturers, through staff development programmes, to adopt alternative learning methods.

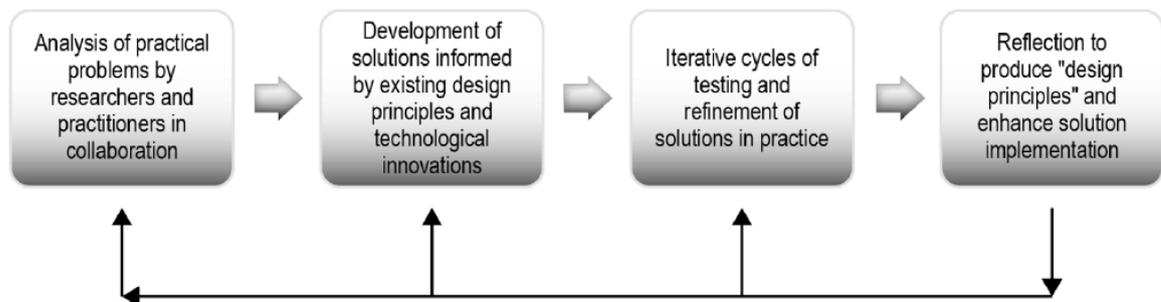
To this end, the purpose of the current study is to address the gap that exists between lectures' acceptance of the importance of student centred learning and putting these intentions into practice. Forming part of a larger PhD study, this project aims to develop and apply a practical model designed to aid lecturers in the creation of student centred activities to use in their modules to promote student mastery of course content.

### **Processes / Methods**

A design based research methodology will be followed for this study. Barab and Squire (2004) in van den Akker, Bannan, Kelly, Nieveen & Plomp (2015:6) define designed based research as a series of approaches with the intent of producing new theories, artefacts, and practices that account for and potentially impact learning and teaching in naturalistic settings. The

design based research collective (2003:5) propose that good design based research has the following five characteristics: First, the main goal of designing learning environments and developing theories of learning are closely linked. Second, development and research take place through continuous cycles of design, implementation of the design and testing of the design. Third, research of designs should help other practitioners with workable theories. Fourth, research must focus on how design works in real life situations, not only documenting success and failure, but also focusing on understanding how the learning took place. Fifth, the development of such accounts relies on methods that can document and connect processes of enactment to outcomes of interest.

The design-based research in this study will be conducted by a researcher who closely keeps an eye on practice, particularly on the problems facing teachers and learners. Problems will be identified and solutions will be created and adopted to produce a model and principles for student centred activity design. Based on Reeves's (2006) in Pool & Laubscher (2016:43) illustration of the Design based approach, the following process will be followed:



Reeves (2006) in Pool & Laubscher (2016:43)

The problem that has been identified is the gap that exists between lectures' acceptance of the idea of student centred learning and actually putting these intentions into practice. This problem will be analysed by the researcher and lecturers involved in this study. The lecturers and the classes they teach will be chosen on a voluntary basis. As this model has been successfully tested and adopted in the Faculty of humanities, the researcher hopes to identify

one course in the Faculty of Economic and Management Science and one course in the Faculty of Natural and Agricultural Science on the Bloemfontein campus. A volunteer in any course will also be approached on the QwaQwa Campus. After consulting relevant literature, workshops will be presented to the lecturers to train them to develop student centred activities for their classes. Support will be given to the lecturers in the designing of the activities. For the individual TAU project, one cycle of testing will be done with the students in the particular classes. By making use of action research, feedback will be asked from the lecturers and students involved to produce design principles and enhance the solution for the next cycle of implementation which will be tested as part of the larger PhD project.

### **Outcomes**

As Reeves's (2006) in Pool & Laubscher (2016:43) suggests, the first step of design-based research focusses on the analysis of a significant educational problem. Practitioners and the researcher together explore the nature of an educational issue or problem facing students. On the 5<sup>th</sup> of November 2018, the researcher held a workshop as an introduction to the first phase of design-based research. 34 participants (9 from Economic and Management Sciences, 3 from Education, 4 from Health Sciences, 1 from the Humanities, 15 from Natural and Agricultural Sciences and 2 Support Staff) were engaged in a workshop to train them on student-centred learning. This was done to prepare the participants so that they could actively participate in the process of analysing the activities (educational problem identified). In order for the practitioners to participate productively, they should understand the foundational theory of the educational problem. In the three hour workshop, attendees were presented with practical skills to design classroom activities. Attendees were provided steps to guide and assist them in converting their classroom into a student-centred environment where students learn by doing.

As ethical clearance has been obtained for this study, the researcher are actively recruiting participants and follow up sessions are scheduled with lecturers (practitioners) on the Bloemfontein and QwaQwa campus to start implementing the first cycle of design-based research. Support will now be given to the lecturers in the designing of the activities. Focus groups will be held at the beginning and end of the second semester of 2019 to track the

development of the proposed model to solve the educational problem. This will be repeated in the first and second semester of 2020. Attendees of the first workshop reported that the session was insightful and practical, favourably highlighting the sharing of new ideas and tips for activities. As the research progresses further positive feedback is expected with the outcome of a practical model for effective teaching to equip lecturers to better communicate course content to first year university students.

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