TAU PROJECT REPORT

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Innovating pedagogies through Information and Communications Technology (ICT) integration in teacher education programme.

Background

The advent of technology challenges teaching and learning spaces as children at a young age are more technological oriented. This influences the teaching and learning environment more especially when traditional ways of teaching where a teacher dominates in the classroom are still dominant. In the context of teacher education, student-centered methods of teaching are to be modelled in order for students to collaborate and engage with peers in class. As student teachers are being prepared to become teachers, the aim is to model active classroom environments for them to implement such pedagogies when in schools for school experience and beyond. It is for that reason that Jacobs, Vakalisa and Gawe (2011) believe that for effective teaching and learning to take place, a conducive classroom atmosphere should be created to promote student engagement and peer collaborations during the teaching and learning process. However, this envisaged student engagement and peer collaboration are challenged by class size (Exley & Dennick, 2004). The large class often jeopardizes the opportunities of learner-centred classrooms where there are opportunities for students to engage and this is often exacerbated by long benches. In addition, monitoring of student attendance and performance is affected. When Blackboard was adopted as the learning management system from my institution in 2009, the purpose was for

academics to integrate technology in their teaching and promote student engagement. However, nothing much has been done in terms of using Blackboard for its intended purpose, in many instances, Blackboard is used as a repository site to upload readings for students. This background has influenced the choice of this project as its aim is to engage student teachers through integrating ICT when teaching. In addition, I chose Blackboard for this project as a platform to use in order to enhance student engagement during class.

The aim of the project

The main aim of this project is to transform the classroom atmosphere and encourage student engagement and peer collaborations during the teaching and learning through integrating ICT in large classes. With this aim, the monitoring of student attendance and progress may be realized.

Literature reviewed

Literature suggests that large class poses a challenge to effective teaching and learning as teachers struggle to monitor student attendance and performance (Lin & Chen, 2006; Deed, 2007; Thatcher, Fridjhon & Cockcroft, 2007). This also prevents students from being actively involved in the lesson. This becomes a challenge as students might find other alternatives to keep them busy during the class; they may chat with friends from social networks. Hence, Taylor and Parsons (2011) are of the view that teachers need to adopt ways of engaging students during the lesson to ensure that their attention is undivided. Technology has created opportunities for students engage in the learning process. This is because from as early as 12 – 14 years, children use technology as they have access to internet and cellphones (ABS, 2011). This requires teachers to ensure that they are at par with how ICT can be integrated to transform their classes and provide students with support (Voogt, et al., 2013). This required teachers to move away from the traditional methods and adopt more blended approaches that promote active learning where students are offered with opportunities to engage when learning (Blamire, 2009; Barron & Darling Hammond, 2010).

For this project, teachers need to have subject specialisation knowledge, appropriate methods used when teaching the particular subject and how technology is used as a tool that enhances student learning. This in a way may encourage students to engage and work collaboratively with peers when learning. The project therefore, adopted TPACK model and engagement theory. The TPACK model emphasizes three main components of teachers' knowledge for effective teaching to take place, i.e. content, pedagogy and technology. The model's emphasis is the interaction between these components (Mishra & Koehler, 2006). TPACK model enables teachers to implement

ICT in their teaching by encouraging use of appropriate tools for teaching purposes effectively (Mishra & Koehler, 2006). The engagement theory encourages students to engage in meaningful activities that can motivate and inspire them (Kearsley & Schneiderman, 1999). The theory promotes student involvement in the learning process as the project focuses on student engagement and peer collaboration in large classes.

Processes followed in the project

This project was conducted in the Faculty of Education with 330 students enrolled for Post Graduate Certificate in Education (PGCE) and Bachelor of Education (BED) programmes. For the purpose of this project, only PGCE and BED 3 classes were chosen as their classes are in the first semester. I chose first semester classes these are the largest classes I have, moreover, I wanted enough time to prepare for the project implementation and ensuring that all the necessary resources are available before the commencement of the project.

From the beginning of the year both classes were given pre-tests to gather more data about their experiences of learning in large classes, peer collaborations, engagement during class and their knowledge about using Blackboard. After the pre-tests, the students were divided into groups and they remained in these groups throughout the semester. The WhatsApp groups, discussion forums and wikis were created for the students. Two sessions of Blackboard training were held for students through Teaching and Learning Centre (TLC). I have worked with four tutors who were already employed by the faculty for other tutoring responsibilities.

Through faculty and institutional presentations made towards the end of 2018, some colleagues showed willingness to work with me in the project when implemented. In addition, ICT Department promised to give me 60 laptops for the project to be installed in the Faculty computer lab. However, for the short-term I was promised that Wireless Access Points (WAP's) will be installed to our lecture venues to ensure that students are connected to the internet for them to engage with peers when learning.

What has been achieved for the project?

I have introduced two groups of students (PGCE and BED 3) to Blackboard and a training was successfully done for them in February 2019. The duration of the training was 1 hour and I had organised 2 sessions for each group with TLC unit. After the training, I have used discussion forums and wikis with the students. The discussion forums were more successful than wikis. Wikis were a challenge with bigger classes while with discussion forums there were different topics assigned to each groups and the groups start discussing about the topics. As groups received topics to discuss, some groups were assigned to ask questions to particular groups to trigger discussion. This

was meant to solicit discussion about the reading that the students received prior the class. This has improved attendance as all the tasks done during the class were included in the assessment criteria for the semester marks.

Initially, some colleagues intended to be part of this project but due to some disruptions and they withdrew as they could not find time. I continued with the project and anticipate that beyond TAU colleagues can become champions who advocate for innovative pedagogies through ICT integration in our classes. As the main purpose of involving them was to become a Community of Practice championing ICT integration to enhance student engagement in large classes, even beyond TAU with the support of Teaching and Learning Centre (TLC) this can still be achieved.

I have not received the 60 laptops as yet and I still hope that we will receive them as the university started with the process of upgrading the ones for legible staff members, however, the WAP's were installed by ICT department in our teaching venues, January 2019. In the absence of laptops from the lab, the WAP's enabled students to use their computers and devices to connect and work on a given task as they are in groups. For each class that accommodates 200 and more students 2 WAPs were installed, while with classes that cater for 70 or less 1 WAP was installed. The students worked well as they worked in groups and this arrangement worked well as we never experienced any connectivity problem due to a number devices connected. In addition, students were encouraged to create WhatsApp groups for them to continue collaborating with their peers about the work given even beyond class. These WhatsApp groups have been helpful more especially when we experienced problems with Blackboard during the first term. I have also noticed that integrating ICT when teaching has numerous benefits. I have uploaded all the readings, assessments activities and due dates to Blackboard in advance. Even when there were protesting students, deadlines were met as students continued to work with their groups and submit their turnitin linked tasks.

The students benefitted from the project and student engagement improved as students worked with peers in the work given. Students also started to come to class prepared as groups were given questions to discuss about particular topics. They became more responsible as they never absented them from class without any valid reason. I have also learned a lot in the process as I developed strong relations with students and managed to know those with problems. They also felt closer to me as we interacted often through WhatsApp and this made me to be reachable and approachable when having problems. The same WhatsApp groups created were also used for the other courses as well. This project challenged me as I had to always think of how best can the students engage during class.

From this project, 1 paper was presented in a conference, July 2018 and the other was presented in the Sasuf Symposium in May 2019.

Plans beyond TAU

- Roll-out the project objectives to all my courses in the second semester
- Introduce Life Orientation method students to online reflections as from July 2019
- As from next year, I will pilot online assessments with the two modules I chose for the project
- Establish a CoP with colleagues to champion ICT integration in the Faculty through the office of Deputy Dean: Teaching and Learning
- Work with TLC and be part of institutional endeavours aimed at integrating ICT
- Research papers and conference presentation

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