



**Curriculum Development and Transformation in Work-Based Learning Modules in the
BPharm Curriculum at Sefako Makgatho Health Sciences University**

Project Report

**Teaching Advancements at Universities (TAU)
PROJECT REPORT**

**Sefako Makgatho Health Sciences University
School of Pharmacy
Department of Pharmacy Practice**

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ABSTRACT

Higher education is currently under both internal and external pressure to transform its curricula. This has put all health professional programmes under the spotlight to make efforts to support the transition. Evidence of this change is provided by the introduction of non-traditional methods of teaching such as problem-based learning (PBL) and inquiry-based learning (IBL). These methods emphasize that effective learning cannot be limited to the delivery of information, but that active participation of the learner is essential. The starting point is the revision of the traditional teaching role. Current trends in curriculum development promote integration, responsiveness, regular review and renewal, as well the introduction of means to map curricula. SMU being a Health Sciences University needs to actively engage with its curricula to ensure that it is providing training that is responsive to the needs of the community as well as ensure that our students are adequately trained for the workplace. The main aim of this project is to ensure that SMU's curricula are responsive to the needs of the students and the community. The project target group is the Academic staff in the targeted curricula, particularly work-based learning (WBL) within the School of Pharmacy at SMU.

AIMS AND PROCESSES/METHODS

To ensure that work based learning (WBL) modules in the School of Pharmacy BPharm curriculum are responsive to the needs of the students and the community.

OBJECTIVES

The objectives of the project are to:

- Review current work based learning modules in order to obtain student experiences and impact thereof;
- Conduct focus group discussions with work based learning module conveners to obtain their insights and experiences; and
- Develop a revised work based learning module for retail/community pharmacy in the 3rd year module using technology.

PROBLEM STATEMENT

Currently, the South African Pharmacy council provides minimal guidance for work based learning and inquiry based learning, as such, there is a lot of variation in terms of how this is rolled out and undertaken by different universities. SMU is not unique; these inherent challenges of lack of harmonisation are also evident even within the School of Pharmacy. Work based learning modules are offered differently from year 1 to year four, thus there is a greater need to relook at the structure and offering of WBL in the School of Pharmacy.

- BPharm undergraduate students: Web-based application will be accessible from any device connected to the internet. Students can use their cell phones to access the

application. Additionally this is an effort to reduce carbon footprint, by green to reduce paperwork.

- WBL-module conveners: Web-based application will be available to module conveners to keep track of individual student progress while students are not on university premises, with full control over every DLO for workplace-based learning.
- Industry stakeholders: Student progress forms can be completed online reducing paperwork.

PROJECT ACTIVITIES

1. Basic development of application and reports for workplace-based learning module

The application will digitalize the documents and forms used in the current workplace learning module. It will be developed as a web-based application with individual student user log-in and password requirements to ensure confidentiality. Users will be able to access the application from any device connected to the internet so complete their progress, log daily attendance and leave applications. Site mentors will be able to log onto the application via a QR code provided and their facility practice number, to complete relevant student's progress reports online. The report section of the application will be on individual student level to monitor progress but also consolidated for student results on each of the applicable fields in the application. The module convener/s will be able to view individual and group progress remotely for each ELO completed.

2. Additional features

Changes and additions to the application will be made based on recommendations from module conveners, mentors and student requests. These requests will be evaluated by the HOD and application developer to ensure the changes and additions are relevant and possible to ensure the applicable add value and keep the application in line with the goal of this development.

ACHIEVEMENTS

Research

Views of third year pharmacy students at Sefako Makgatho Health Sciences University on community pharmacy work-based learning: A documentation review

Below is the synopsis:

Introduction - Pharmacy lecturers are instilling the importance of 'learning by doing' in students through experiential learning practices. As part of the third-year pharmacy curriculum

at Sefako Makgatho Health Sciences University (SMU), undergraduates undergo work-based learning at different community pharmacies of their choice. The educational programme helps undergraduate students to bridge the gap between theory and the reality practiced in community pharmacies. This research will add valuable information concerning the topic, because fairly limited research articles are currently available on experiential learning in community pharmacies.

Method - A qualitative and quantitative, descriptive study design was followed using retrospective data from pre- and post-placement worksheets of third year SMU pharmacy students from 2017 to 2019. The results analysed were presented in the form of tables and graphs, **N** = 185, *n* = 144.

Two half-day workshops to understand how each module convener runs the WBL at each level (BPharm I – IV).

Data Analysis – The chi-square test was used to establish statistical relationship among variables.

Results - Majority of the students from year 2018 and 2019 had expectations around dispensing medicine, professionalism amongst pharmacy staff, stock control and “other” expectations. “Other expectations” included applying theoretical knowledge into practice, this includes but not limited to students being able to identify prescription errors, patient counselling etc. Most challenges experienced by third-year pharmacy students included difficulty using Unisolv[®] (electronic dispensing system), inter-professional issues (lack of assistance from their mentor(s) and “other” challenges experienced during the work-based learning. “Other challenges” category included patient-student conflict, illegible prescribers’ handwriting, and not knowing trade names of pharmaceutical products.

Conclusion and recommendations - Our documentation review demonstrated that majority of third pharmacy students had expectations on dispensing medicines, assisting in stock control and professionalism amongst pharmacy staff. During the period of experiential learning, students struggled to complete their detailed learning objectives (DLOs) due to inter- and intra-professional issues whereby some pharmacy staff were rude and not willing to assist students. It was recommended that workbooks should be sent to the mentors earlier as well as training students on Unisolv[®] System.

Module review with all WBL-module convenors

Two half-day workshops to understand how each module convener runs the WBL at each level (BPharm I – IV)

The following were identified as common challenges:

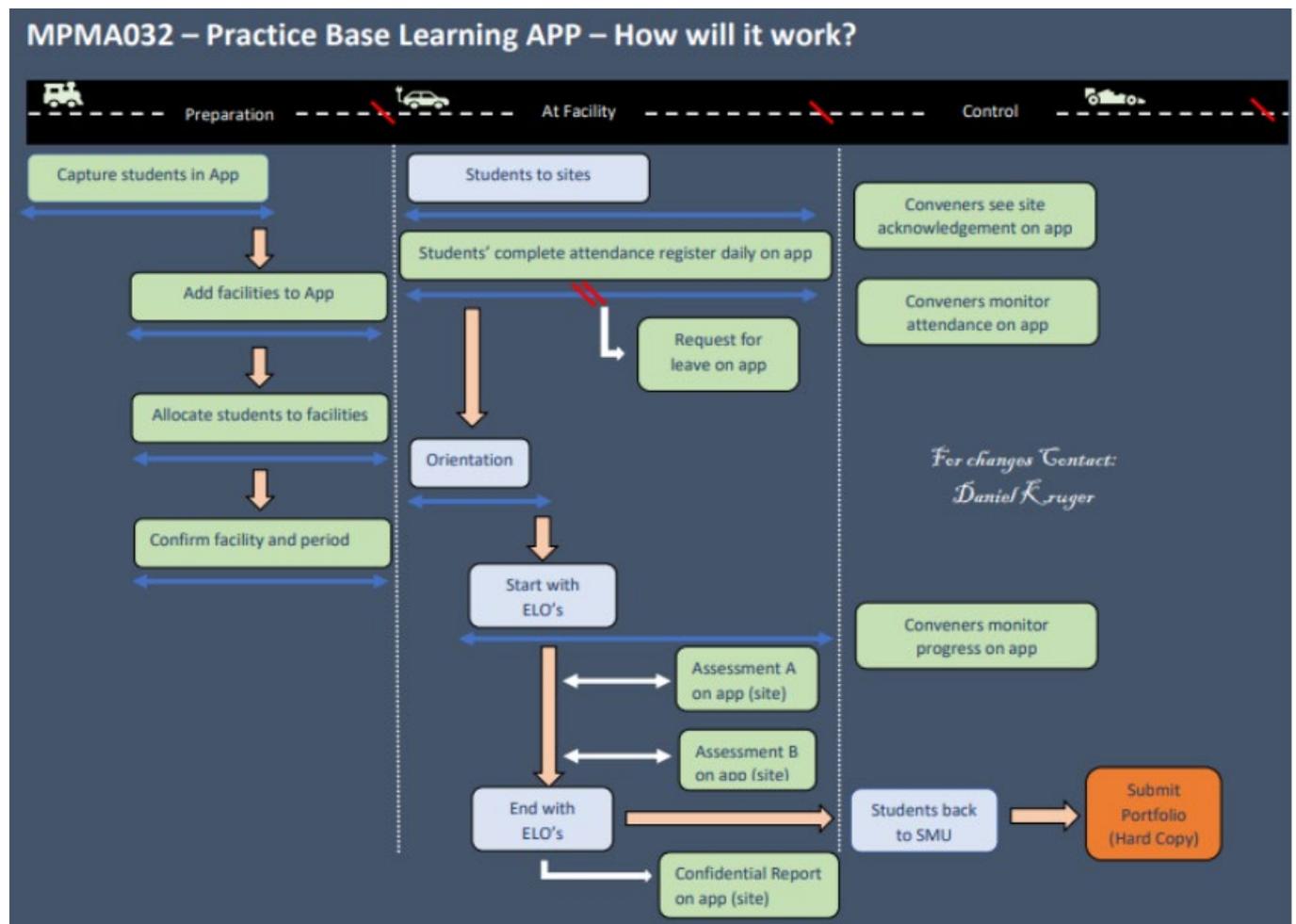
- Student allocation to sites;
- Site readiness to receive students, ie availability of a preceptor on site;
- Clocking in and clocking out systems are not uniform;

- Exit level outcomes are not addressed similarly by different institutions, indicating that there is a need to harmonise practice based learning;
- Reporting of student progress does not allow for the provision of a detailed report, a Likert scale is used; and
- Each module convener marks the portfolio of evidence differently, indicating lack of Standard Operating Procedures and guidance particularly for new staff members.

UCDP application of funding

After the workshop, an application for development of a web-based app was prepared and submitted for UNIVERSITY-LED COLLABORATIVE PROJECTS SUB-PROGRAMME – PROPOSAL (2022/23) in the UCDP platform (**See the roadmap for App Development below**)

INTEGRATION WITH TECHNOLOGY – HOW WILL THE APP WORK?



CHALLENGES

- Research was carried out as part of an Honours Program, ethics approval was a challenge as it was not obtained fast enough;
- Having to rely on students for data collection;

- Staff members are generally not available for activities which are not part of their core mandate, I was really humbled by the turn up and level of input at the two workshops; and
- Although the UCDG application was submitted in March 2022, we are still awaiting feedback from the University.