



DUT

DURBAN UNIVERSITY OF TECHNOLOGY
INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE

ENVISION 2030

transparency • honesty • integrity • respect • accountability
fairness • professionalism • commitment • compassion • excellence



Teaching and Learning for Student Success



Providing opportunities for mathematics preservice teachers' voices to come out in their learning process.

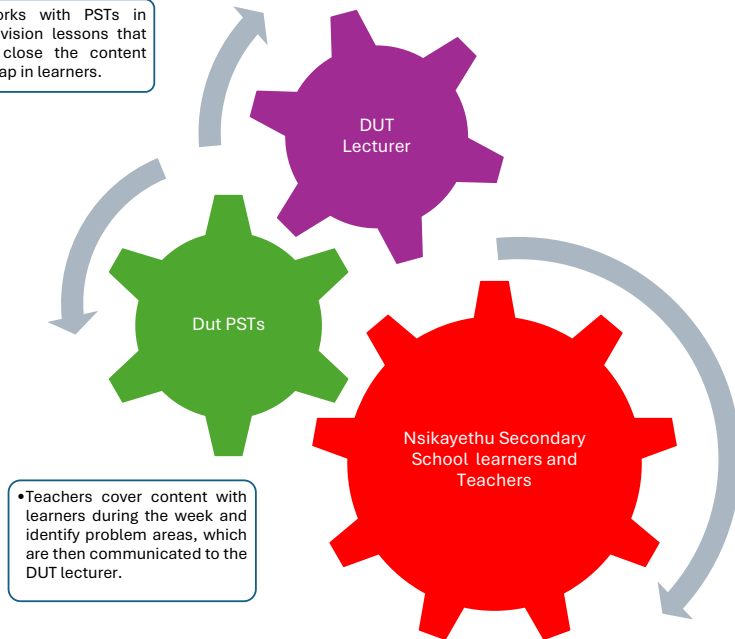


Sibongile Zulu*, Nonhlanhla Mthiyane, and Mamothibe Thamae



Background and framework

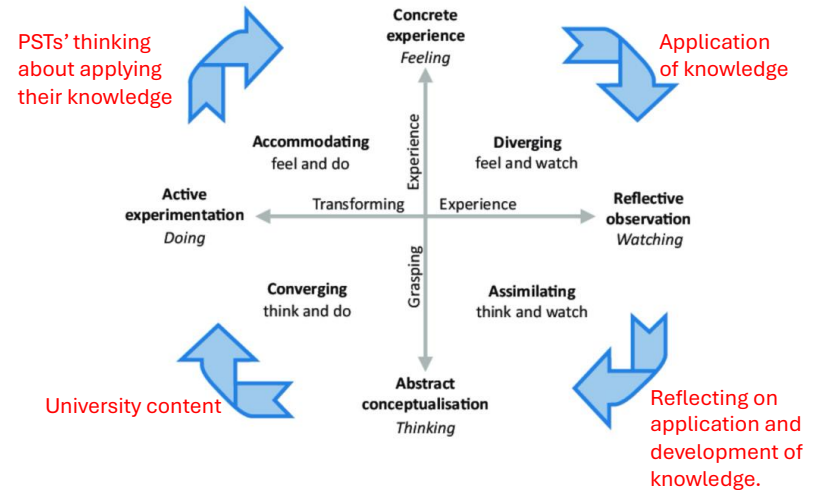
•Lecturer works with PSTs in preparing revision lessons that are set to close the content knowledge gap in learners.



•Teachers cover content with learners during the week and identify problem areas, which are then communicated to the DUT lecturer.

Focus of present study

Kolb's Learning Styles





Data collection tool - Focus group Interviews

Preparing and collaborating

- How was communication in your groups? (share your experiences about the group's ups and down)
- What aspect of preparing for the lesson was the most productive? (What did you learn from the preparations in terms of preparing lessons, and working in groups)
- How did the preparing process impact on your content knowledge and pedagogical knowledge?



Lesson development

How was the lesson delivery?

What could you have done differently?

What did you learn from engaging with learners?

Do you think you were able to improve some of the learners' understanding of the concepts since you were dealing with sections that were problematic for them? If so, what did you notice?

What did you learn from each other during the lesson delivery?



Your learning – Your success

- Do you think your mathematics lecturers prepare you for some of the challenges you encountered?
- Which of the topics you were working with is challenging for you, and did this experience help in any way?
- How do you think your lecturer can help in further developing your knowledge and confidence in the topic?
- What do you think could be done to improve your mathematics learning process to make you a good mathematics teacher?
- What can you say about your university content and experiences and how they prepare you for your teaching career?



Themes from the data

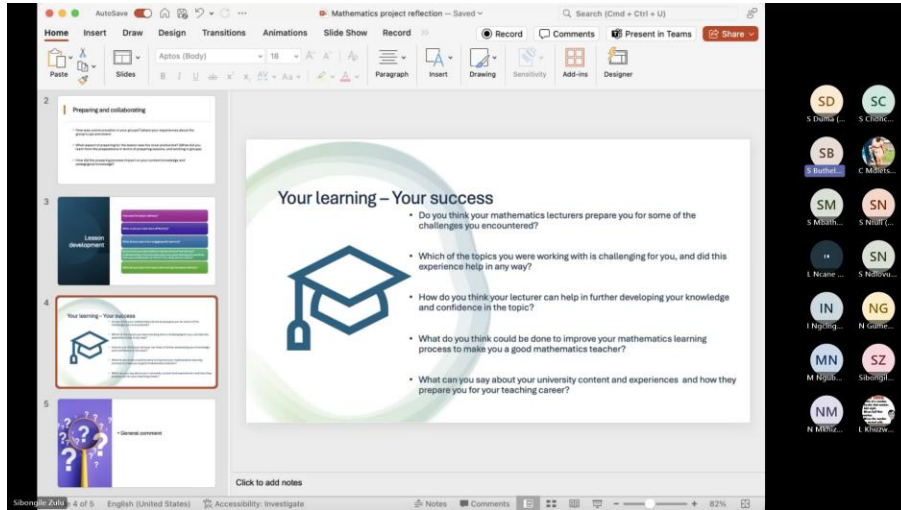
Exposure to
more experience
on the field

Peer learning

Teaching
practices

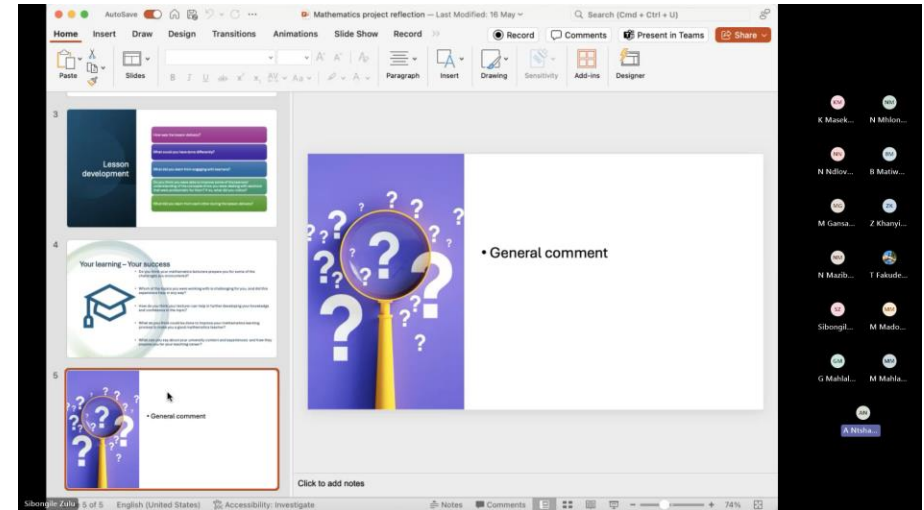
Sociocultural
issues

Exposure to more experience on the field



A

“We the university could expose us to the school experience more, by having the same project for other specializations.”



D

“WIL used to be six months in the last year and teachers used to tell us that it made DUT PSTs more attractive because they had more experience in schools. Since this has changed for us, it would be good if we had this project for all specialization modules.”

PEER LEARNING

Mathematics project reflection – Saved

Search (Cmd + Ctrl + U)

Record Comments Present in Teams Share

Home Insert Draw Design Transitions Animations Slide Show Record

Paste Slides Aptos (Body) 18 Paragraph Insert Drawing Sensitivity Add-ins Designer

2 Preparing and collaborating

3 Lesson development

4 **Your learning – Your success**

5 General comment

Your learning – Your success

- Do you think your mathematics lecturers prepare you for some of the challenges you encountered?
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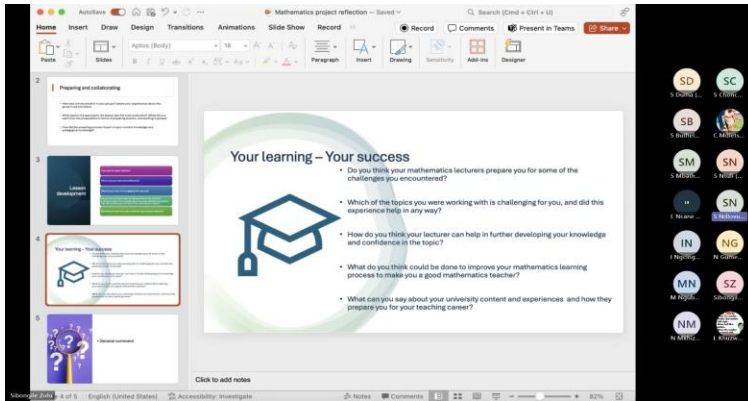
Click to add notes

Sibongile Zulu 4 of 5 English (United States) Accessibility: Investigate Notes Comments 82%

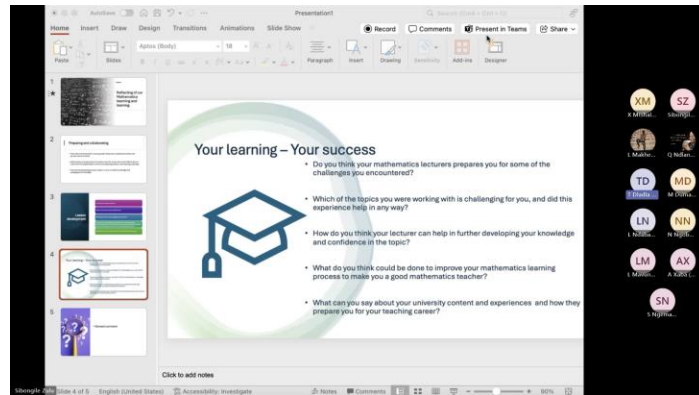
Participants:

- SD S Duma (...)
- SC S Chon (...)
- SB S Buthe (...)
- CM C Mdlets (...)
- SM S Mbat (...)
- SN S Ntuli (...)
- LN L Ncane (...)
- SN S Ndlovu (...)
- IN I Ngcing (...)
- NG N Gum (...)
- MN M Ngub (...)
- SZ Sibongi (...)
- NM N Mkhiz (...)
- LN L Kuzw (...)

TEACHING PRACTICES



Creativity and flexibility

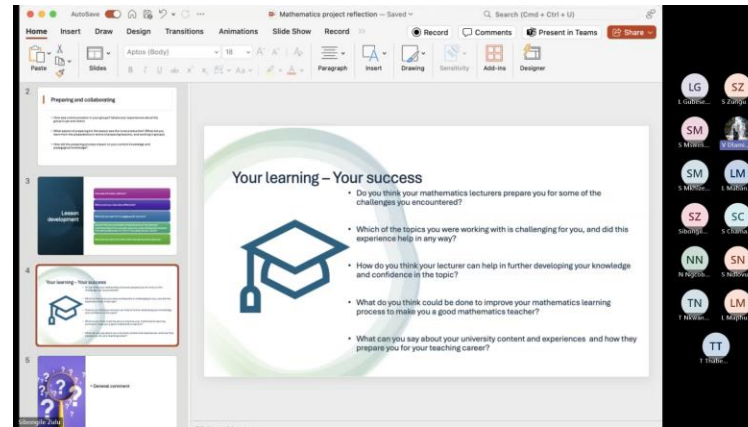


Content alignment and structure

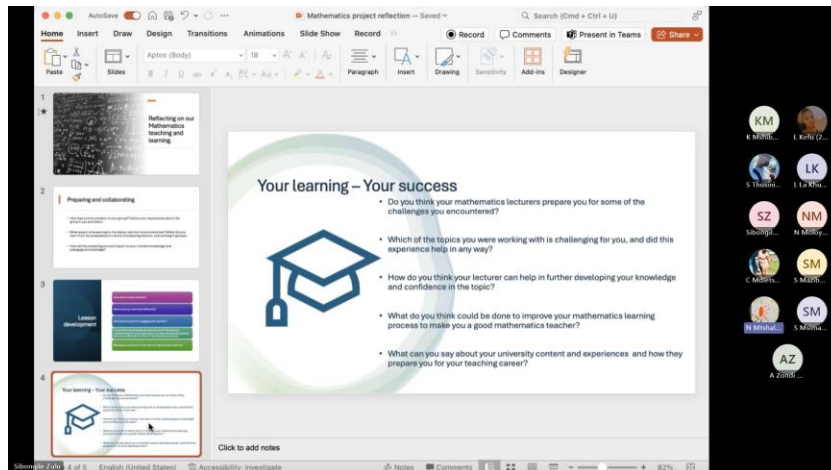
C and D

Call for more tasks that promote the development of PCK

Sociocultural issues



- Working with peers from different cultural backgrounds.
- Communication



Gender stereotypes



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SIGNIFICANCE AND CONCLUSION

- ✓ Aligned to ENVISION 2030 - An Engaged university
- ✓ Addressing challenges in mathematics education
- ✓ Pre-in-Post- University success
- ✓ "The Personal is Political" ...
- ✓ Leveraging on lessons learnt to grow project

THANK
YOU

