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# USING TECHNOLOGY AS A PARTNER TO ENCOURAGE LEARNING IN CLASS

Ina Louw



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## Presentation layout

- Problem statement
- Definitions and context
- Methodology
- Results
- Challenges and triumphs
- Concluding remarks



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## Problem statement

- Math is seen as difficult
- Large class groups
- Misconceptions exist
- Level of understanding
- Monitor class attendance
- Increase action and time



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### Definitions and context

- South Africa
- Action learning
- Active learning
- Mathematics
- Clickers



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### Methodology - lecturer

- Plan:
- Structured presentation
- Appropriate content
- Appropriate technology
- Class and homework activities
- Assessment activities



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### Methodology

•Act:

- Clear written and verbal communication
- High degree of contact
- A variety of teaching aids



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### Methodology

Observe:

- Class group dynamics
- Levels of enthusiasm and activity
- Their attitude toward clickers



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### Methodology

•Reflect:

- What went wrong
- Outcomes of assessment
- Ways to intervene + remediate misconceptions
- How to reinforce the correct work



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1 If  $f(x) = e^x$ , then  $f'(x) =$ ...

- $e^x$
- $xe^x$
- $e^x e$
- $e^x e^x$
- None of the above.

| Option | Percentage |
|--------|------------|
| 1      | 7%         |
| 2      | 11%        |
| 3      | 0%         |
| 4      | 74%        |
| 5      | 7%         |

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Q3 If  $y = \cos^4 x$ , then  $y' =$ ...

- $\sin^4 x$
- $2\sin^4 x$
- $-2\sin^4 x$
- $-2\cos^4(\sin^4) x$
- None of the above

| Option | Percentage |
|--------|------------|
| 1      | 12%        |
| 2      | 27%        |
| 3      | 15%        |
| 4      | 27%        |
| 5      | 19%        |

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4 Did you guess the answer in Q3?

- Yes
- No

| Option | Percentage |
|--------|------------|
| 1      | 52%        |
| 2      | 48%        |

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## Results

- Guessing
- Overall pass rate
- My pass rate
- FGI
- Lecturer's Evaluation form




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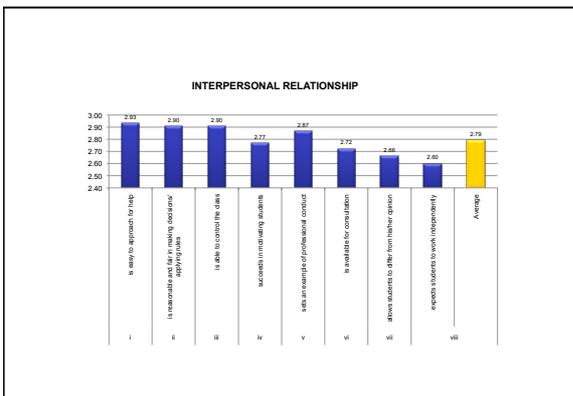
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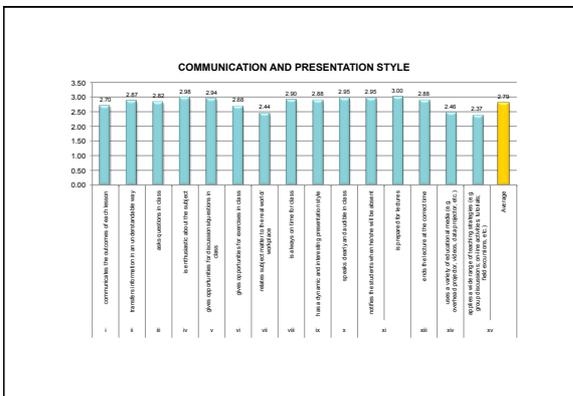
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### Challenges and triumphs

- Logistics
  - Time
  - Baggage
  - Guessing
  - Cheating
  - Nature of multiple choice



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### Challenges and triumphs (cont.)

- Good relationship
- Good performance
- General satisfaction
- Resonating with the Millennium Students' needs



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### Concluding remarks

- Blended approach
- The way forward
  - Lock-up facility
  - Minute papers
  - Muddiest point papers



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