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Multiple intelligence in Personalized Teaching and Learning Practice

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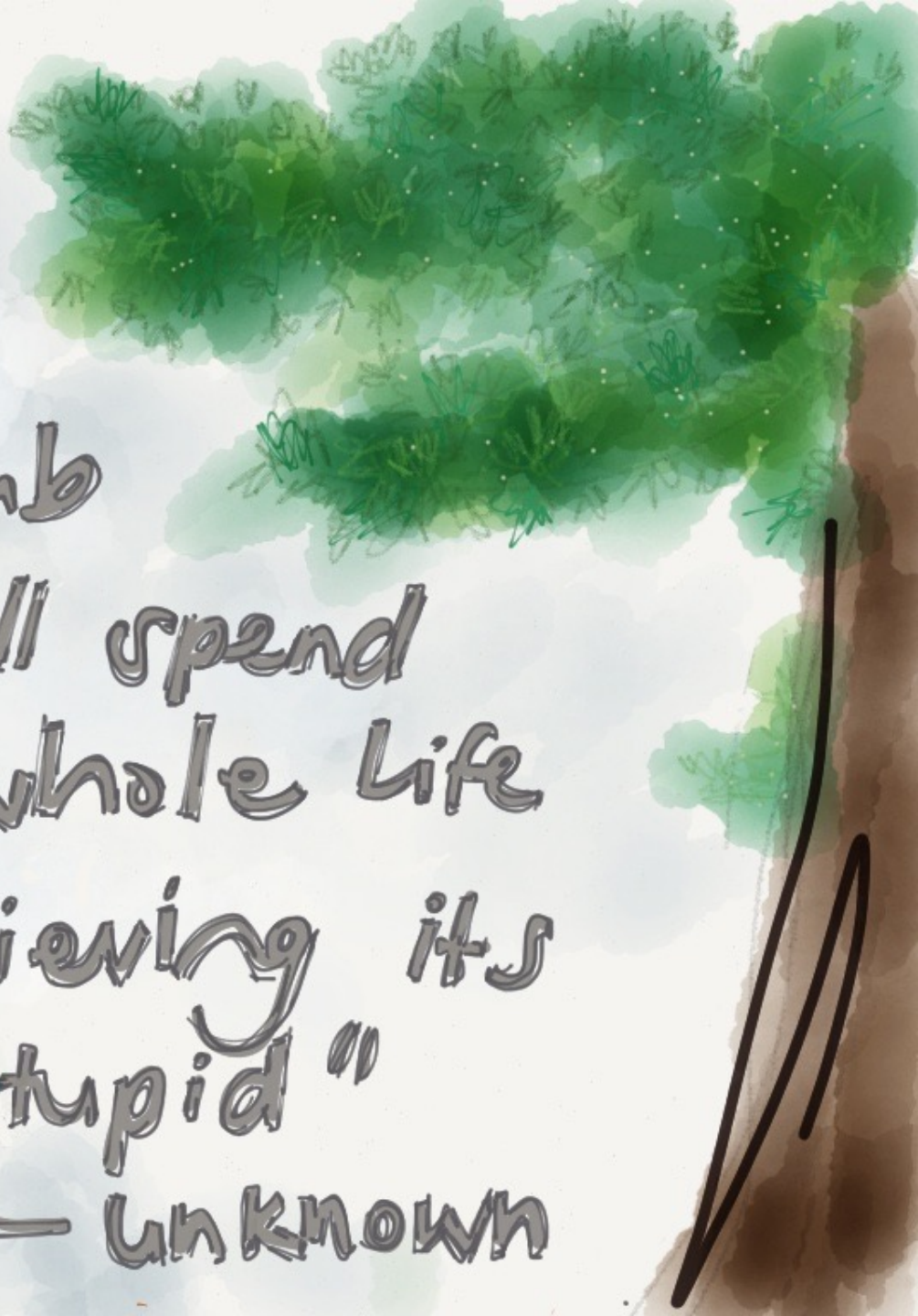
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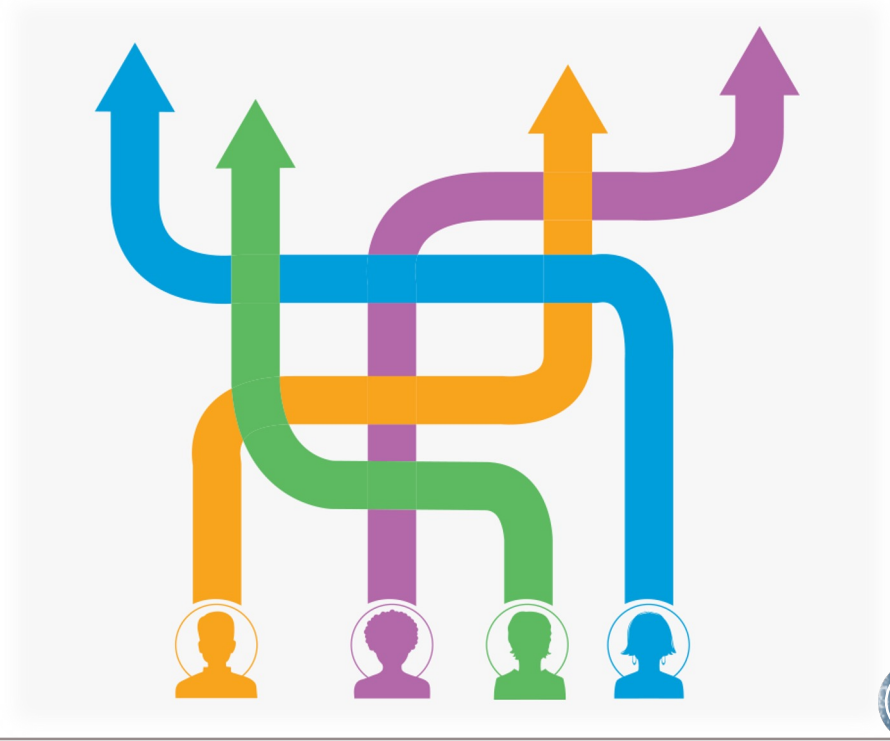


"If you judge
a fish by its
ability to climb
a tree, it will spend
its whole life
believing its
stupid"
— unknown



What is Personalized Teaching & Learning?

- An educational approach that aims to customize learning for each student's strengths, needs, skills and interests.
- What mechanism we should deploy for 'personalized' T&L, but not leaving anyone behind?



Gardner's theory of multiple intelligences

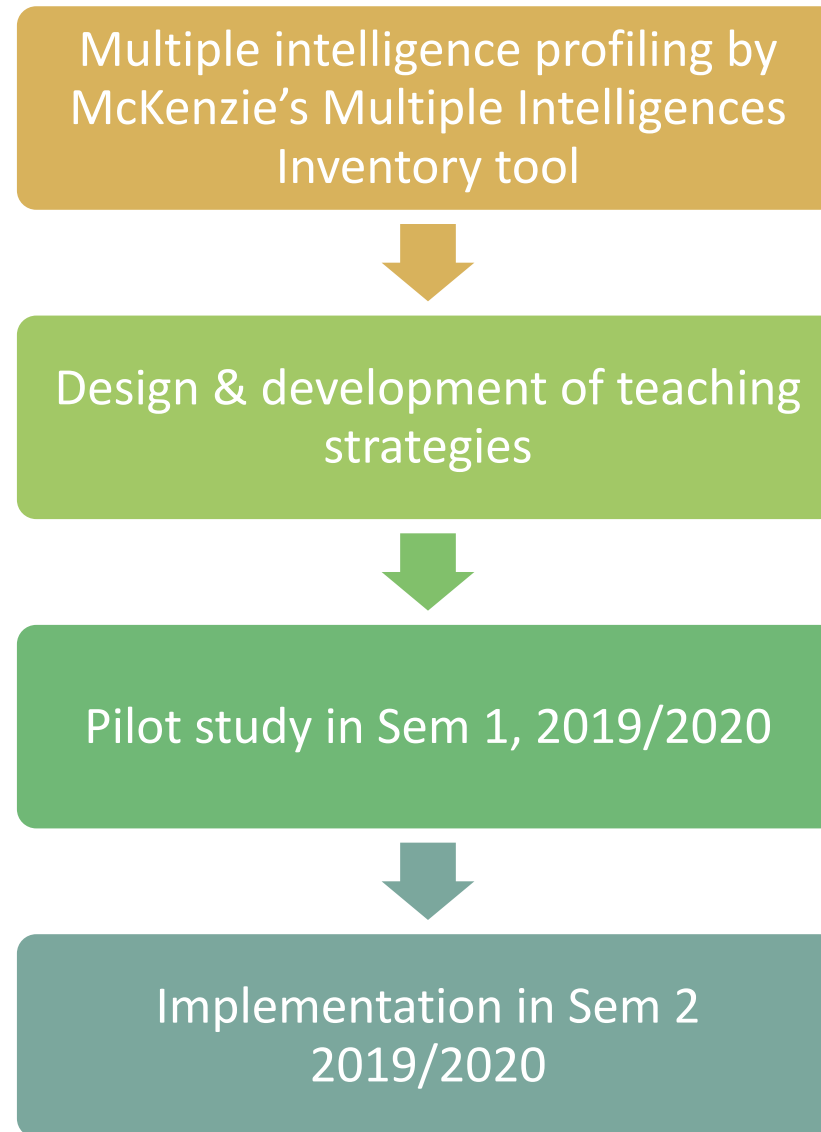


Research question:

One size does not fit all in education, will multiple intelligences-based teaching strategies enhance the students' learning experience and lead to a better acquisition of knowledge?

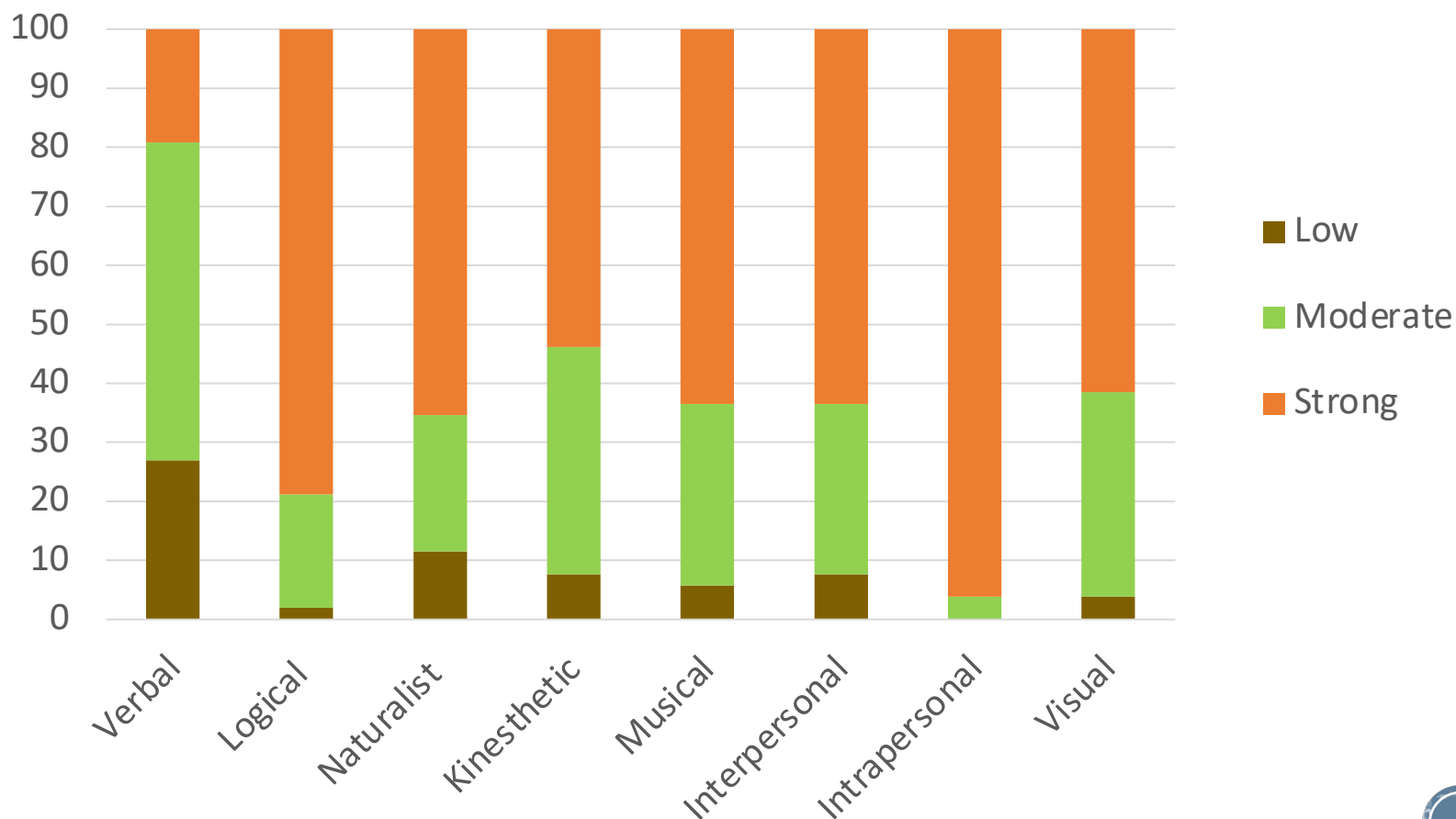


Methodology



Multiple intelligence profiles among the first year Biomedical Science Degree students, 2019/2020 intake

Percentage/%



Teaching and Learning Strategies for Different Multiple Intelligence Profiles

- Oral presentation
- Debate
- Brain storming

- Picture & graphic presentation
- Animation and video

- Calculations
- Classifications and categorizations
- Socratic questioning

- Reflection
- Goal setting session

- Experiments
- Field work
- Collecting data

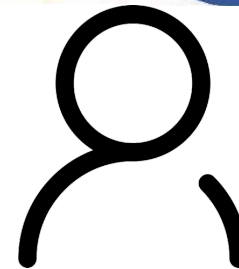
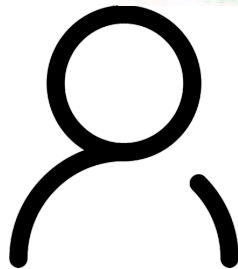
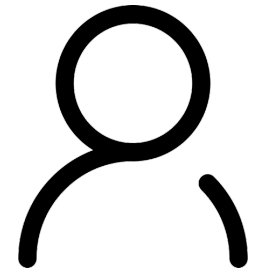
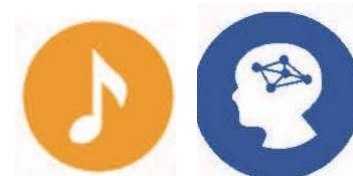
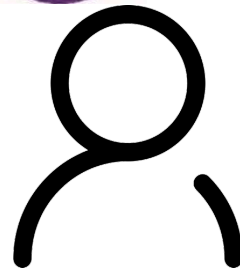
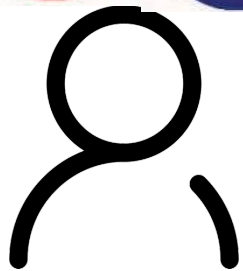
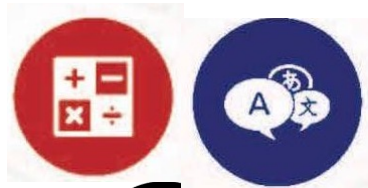
- Peer sharing
- Group work

- Classroom theatre
- Hands on thinking

- Mixture of melody
- Audio program



Pilot study: Assignment in the MIC1002 Cell Biology course

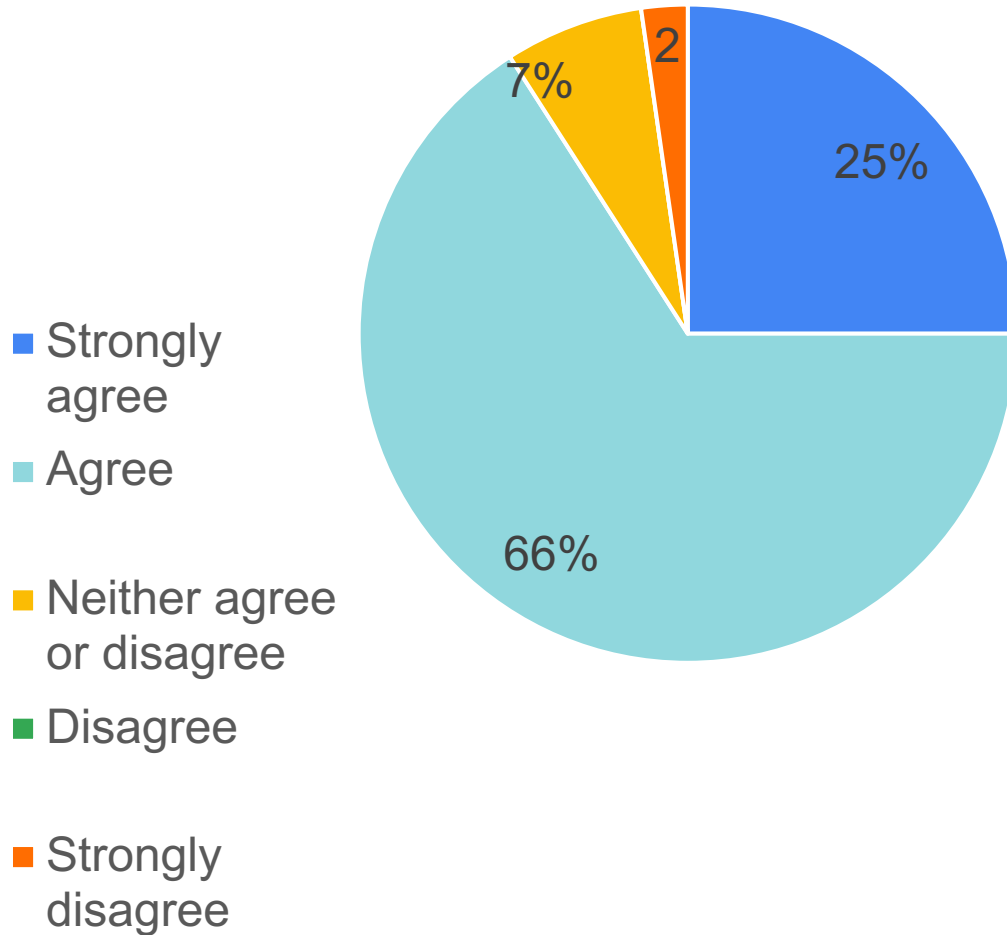


Music assignment submission

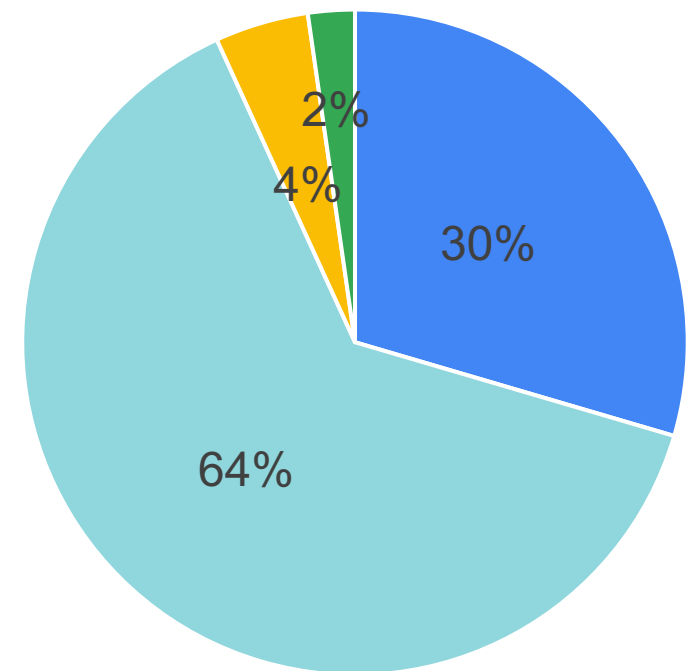


Post-assignment survey

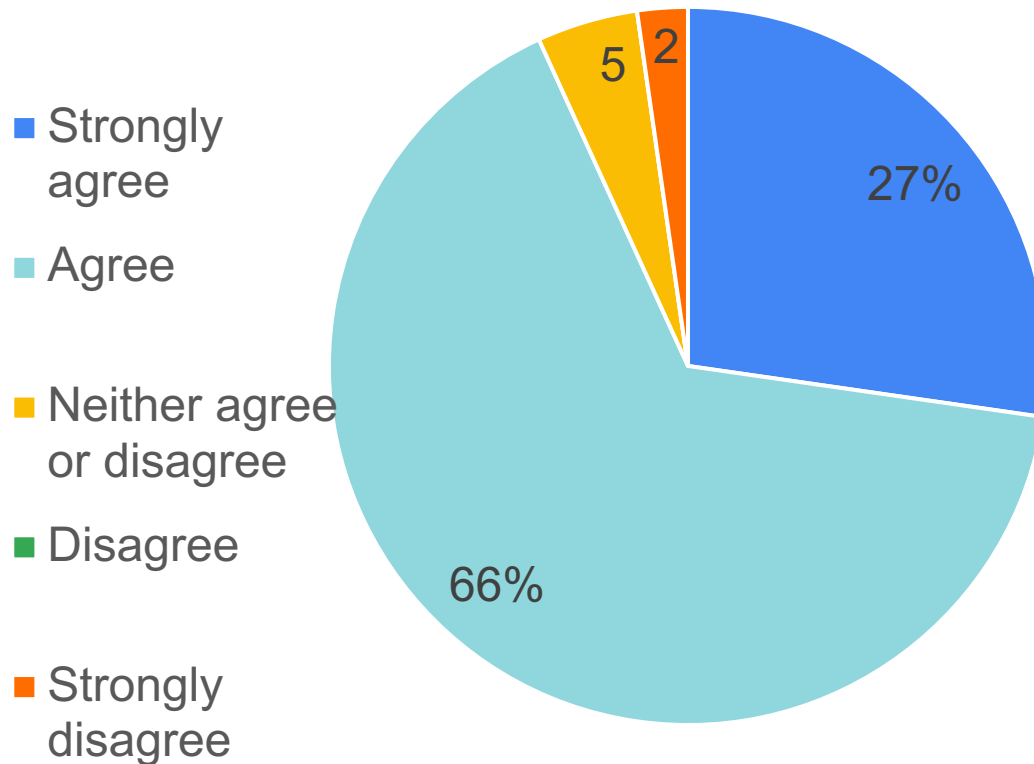
I noticed my group consisted different types of people with specific skills



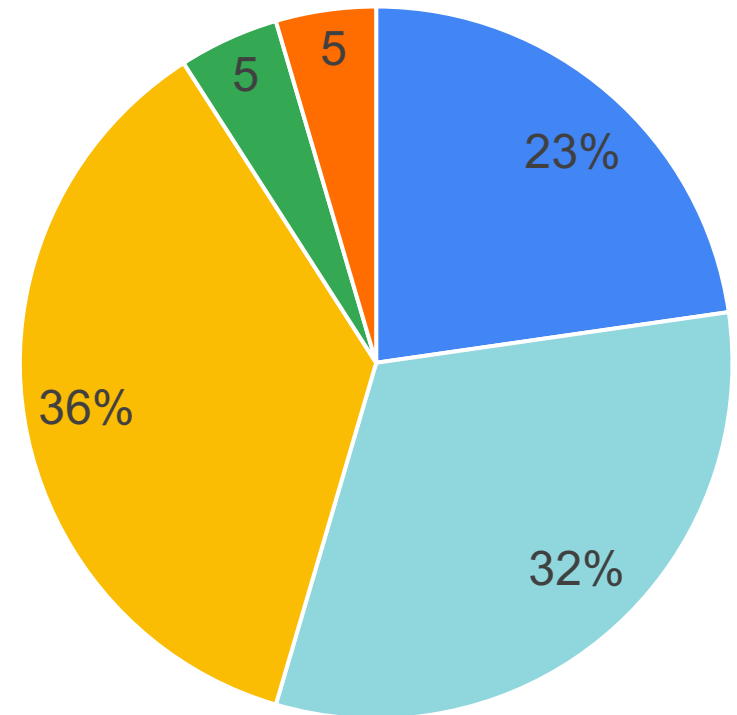
I learned from my team members



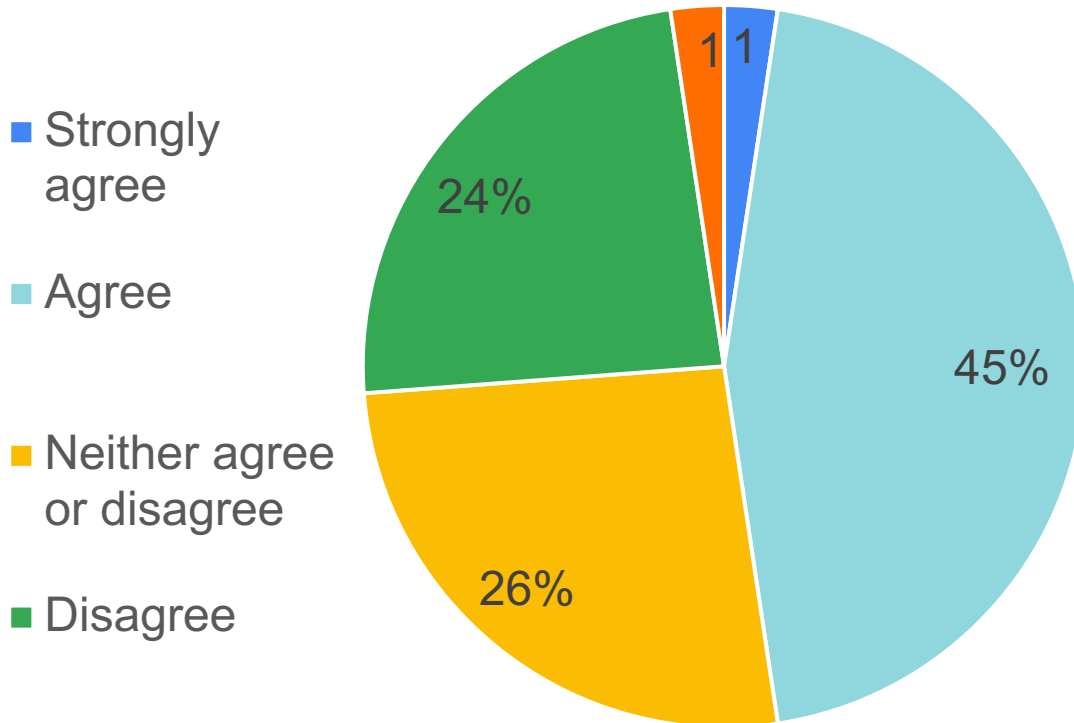
The assignment increased my ability to collaborate and work in group



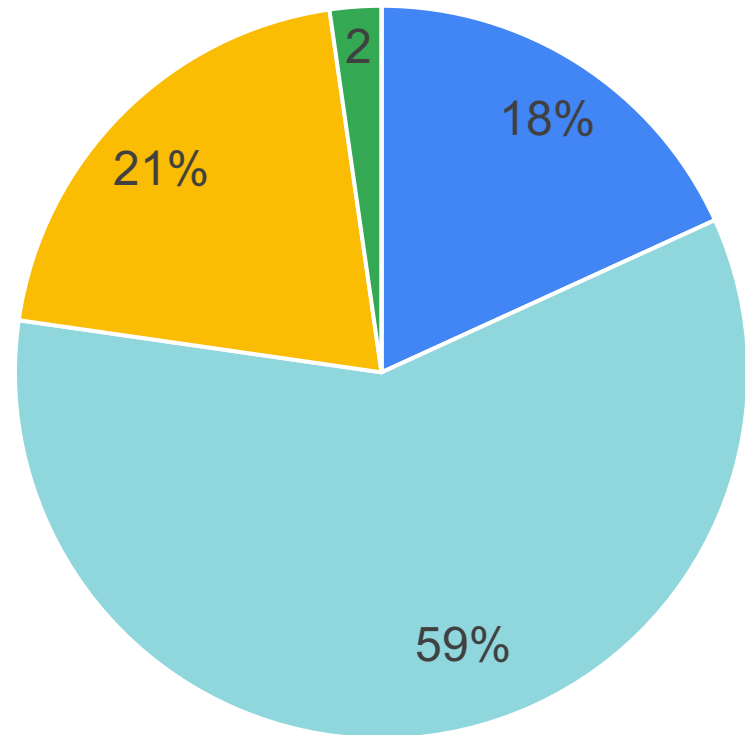
I would like to work in the same group in future



I like music video assignment



The assignment preparation process was enjoyable



Implementation (Sem 2, 2019/2020):

MIC1005 Epidemiology and Biostatistics

Course Learning Outcomes:

1. Define basic concepts of epidemiology and biostatistics
2. Recognize the applications of epidemiology and biostatistics in biomedical science
3. Demonstrate the applications of epidemiology and biostatistics in biomedical science.

Assessment plan:

50 % Written test (Continuous assessment)

50 % Final exam (Summative assessment)



Students performance in MIC1005

Sem2, 2018/2019 VS Sem 2, 2019/2020

Percentage (%)

70

60

50

40

30

20

10

0

■ Sem 2 2018/2019

■ Sem 2 2019/2020

A+

A

A-

B+

B

B-

C+

C

C-

Grade



Assessment plan in MIC1005

Sem2, 2018/2019 VS Sem 2, 2019/2020

Sem 2, 2018/2019	Sem 2, 2019/2020
Continuous assessment: 50 % Written test	Continuous assessment: 10 % Written test 40% Assignment
Summative assessment: 50 % Final exam	Summative assessment: 50 % Final exam



What are the T&L strategies that improved students performance?

- Synchronised discussion session
- Pre-recorded lecture videos

- Pre-recorded lecture videos
- Demonstration session

- Calculations exercises

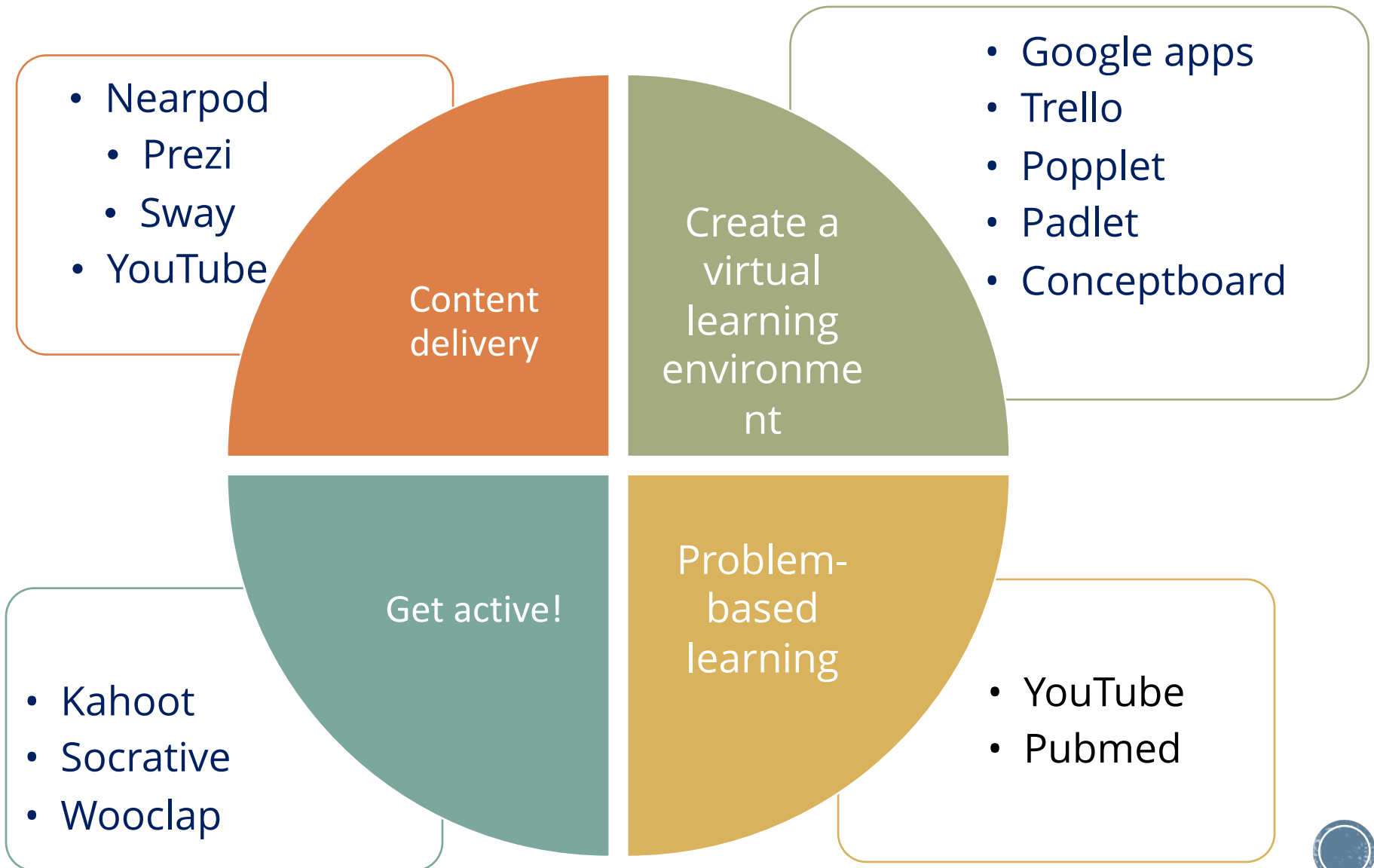
- Use of published data for assignments
- Software hands-on experience

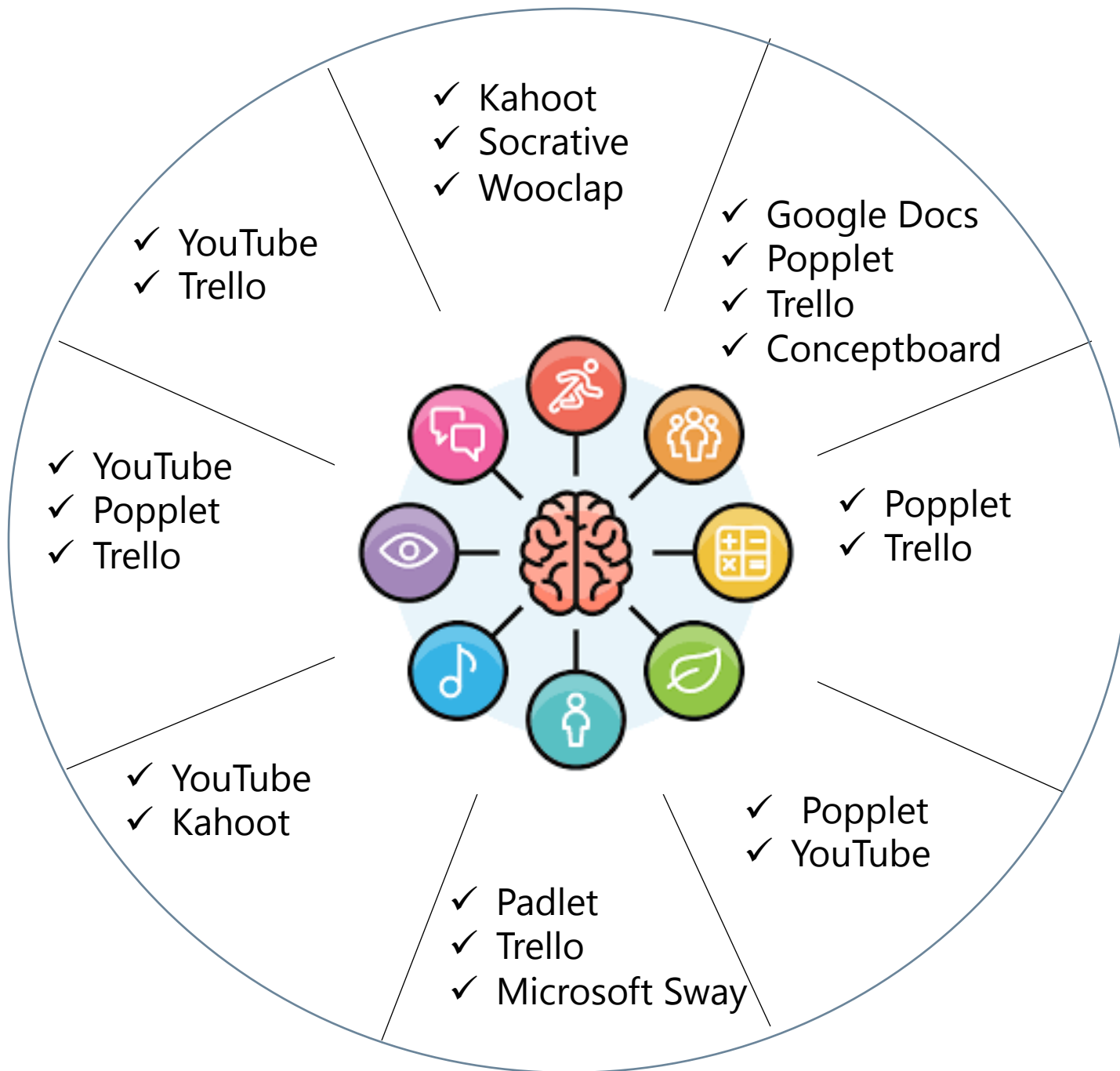
- Group assignments
- Telegram

- Pre-recorded lecture videos



Using Technology to Support Multiple Intelligences Theory





Variety is the key to learning



Thank you