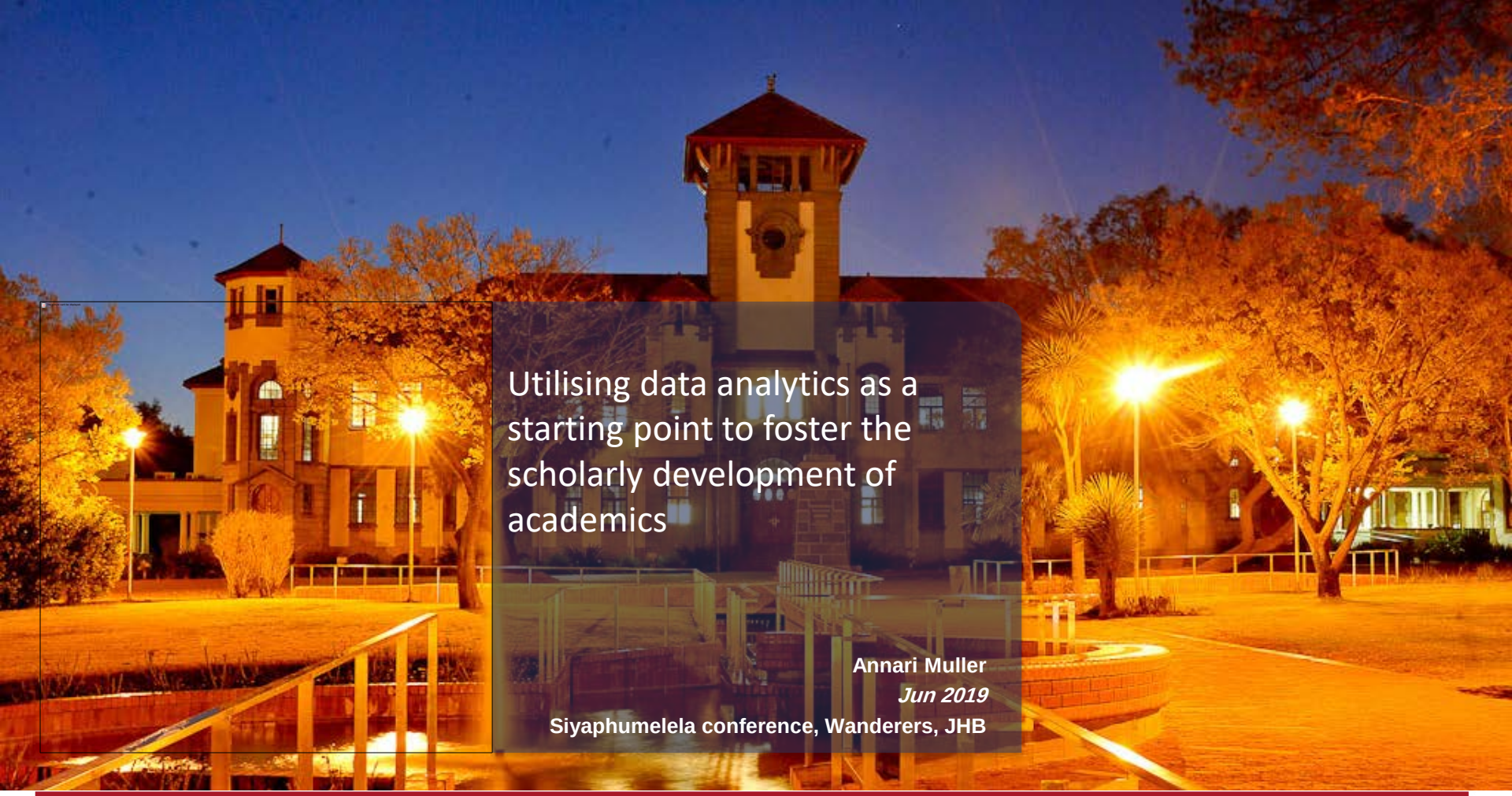

# Utilising data analytics as a starting point to foster the scholarly development of academics

**Annari Muller**

***Jun 2019***

**Siyaphumelela conference, Wanderers, JHB**

T: +27(0)51 401 9111 | info@ufs.ac.za | www.ufs.ac.za

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UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA

UFS·UV
ECONOMIC AND MANAGEMENT SCIENCES
EKONOMIESE EN BESTUURSWETENSKAPPE

# UNIVERSITY OF THE FREE STATE (UFS), BLOEMFONTEIN

## Economic & Management Sciences (EMS)

| | |
|---|---|
| **Enrolled students** | **6 118** |
| Total number of PE academic staff | 93 |
| **Number of undergraduate modules** | **67** |

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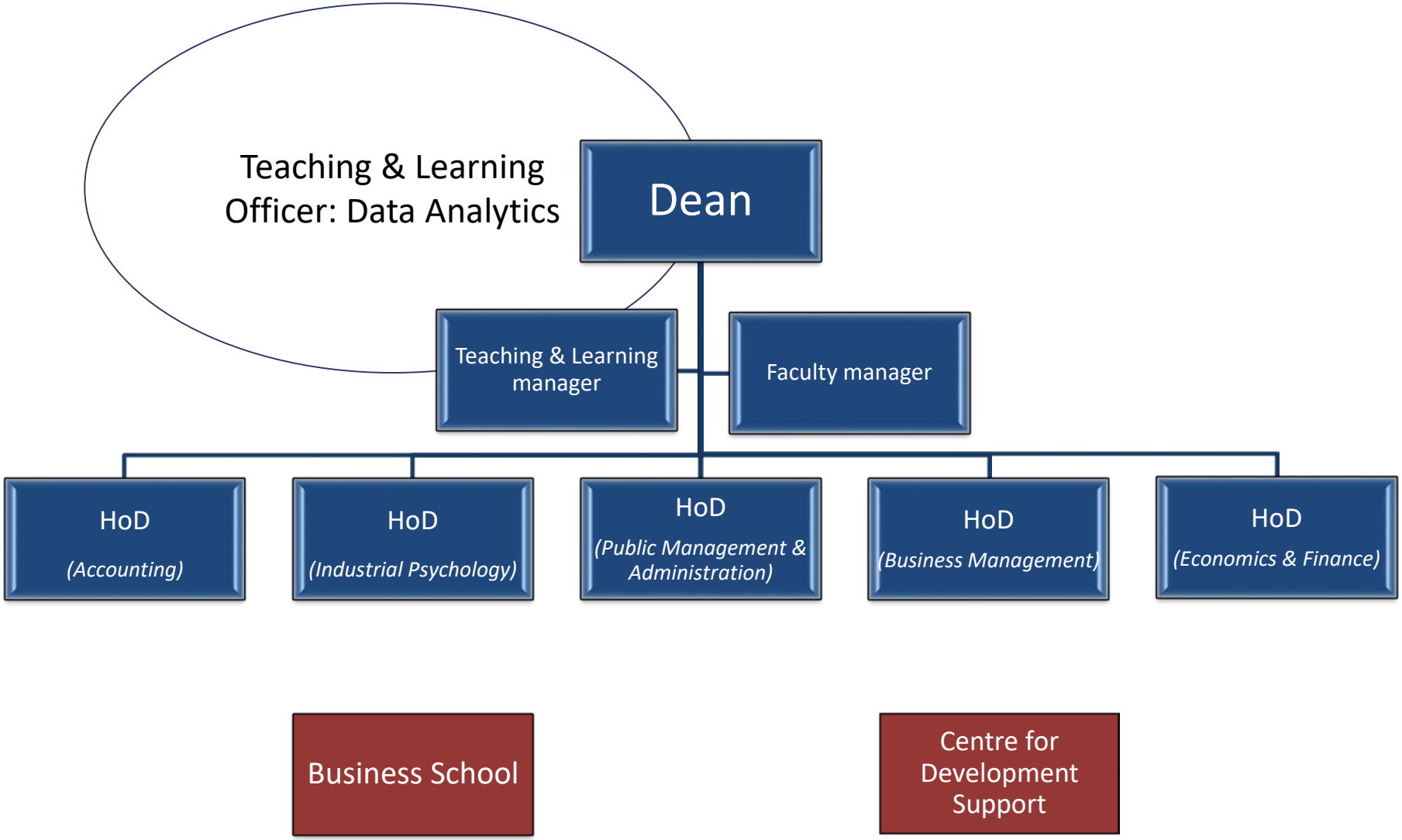
# ECONOMIC & MANAGEMENT SCIENCES (EMS), UFS

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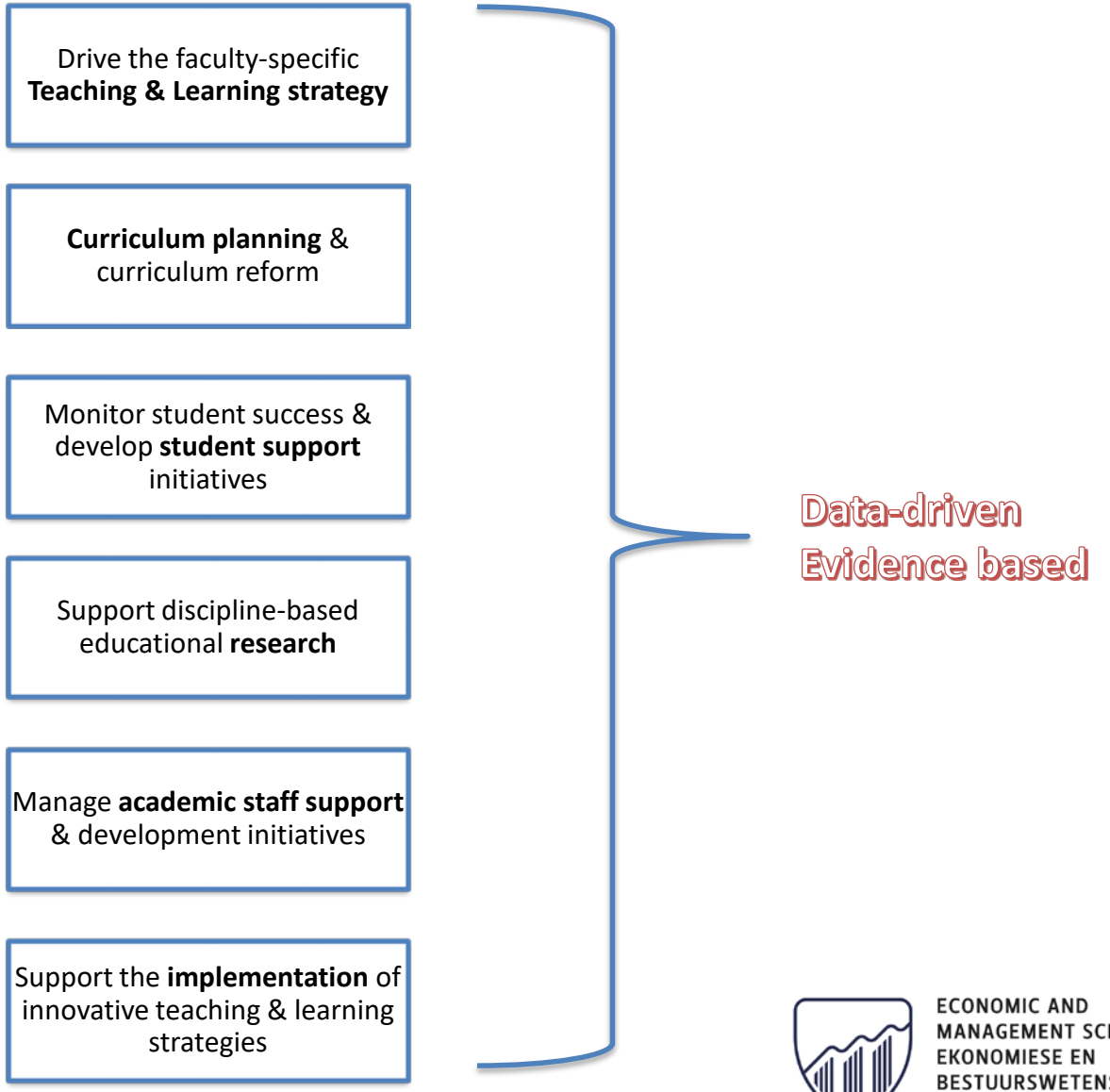
# TEACHING & LEARNING OFFICE ROLES & RESPONSIBILITIES

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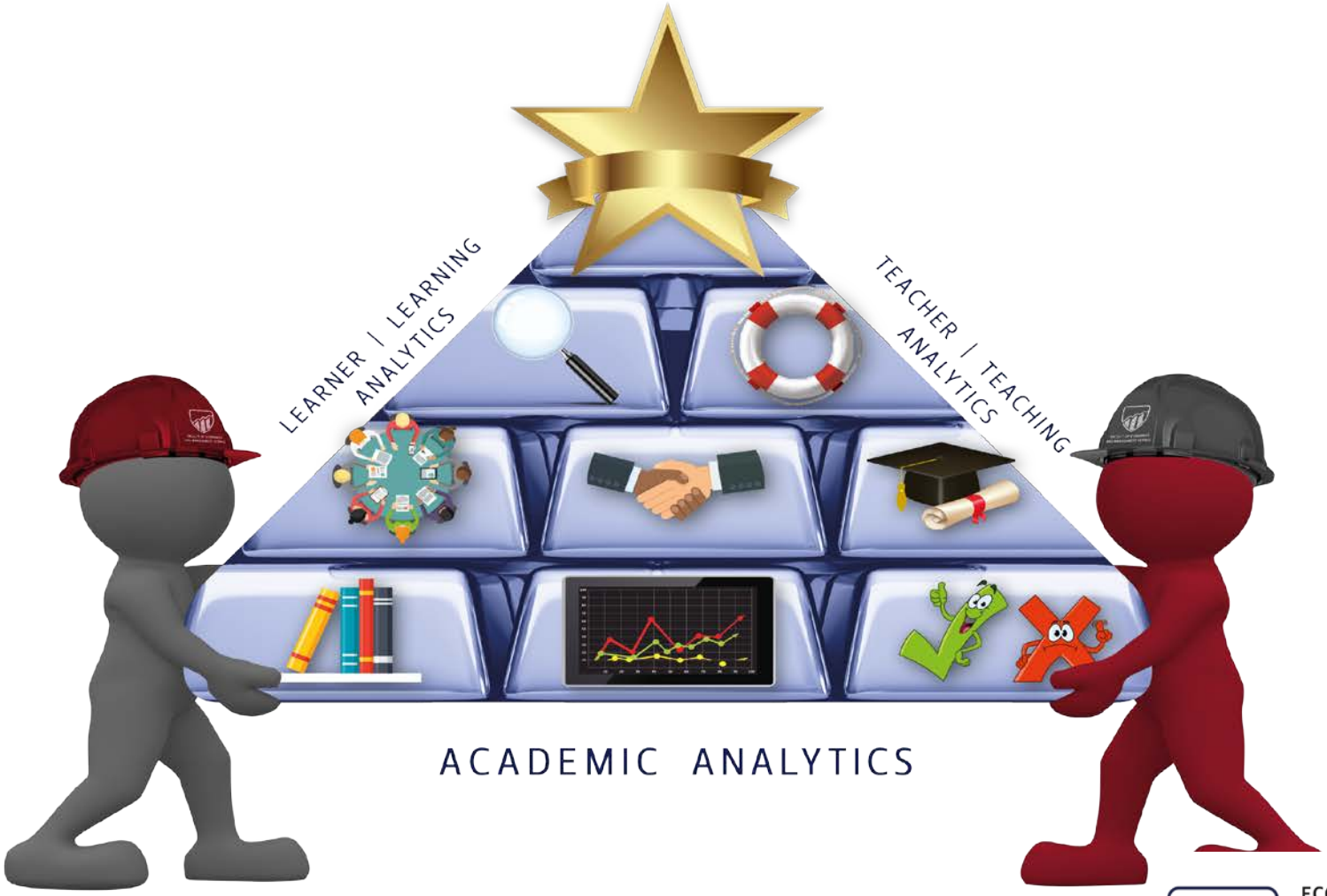
# EMS DATA ANALYTICS FRAMEWORK

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# EMS FACES LOW MODULE SUCCESS RATES

Undergraduate module success rates (UFS faculties)

| | 2015 | 2016 | 2017 |
|---|---|---|---|
| Economic and Management Sciences | 80% | 79% | 72% |
| Education | 89% | 81% | 89% |
| Health Sciences | 92% | 94% | 94% |
| Humanities | 81% | 80% | 78% |
| Law | 75% | 81% | 72% |
| Natural and Agricultural Sciences | 85% | 84% | 83% |
| Theology | 96% | 92% | 91% |

83%

Source: UFS Teaching and Learning Report 2018 (CTL)

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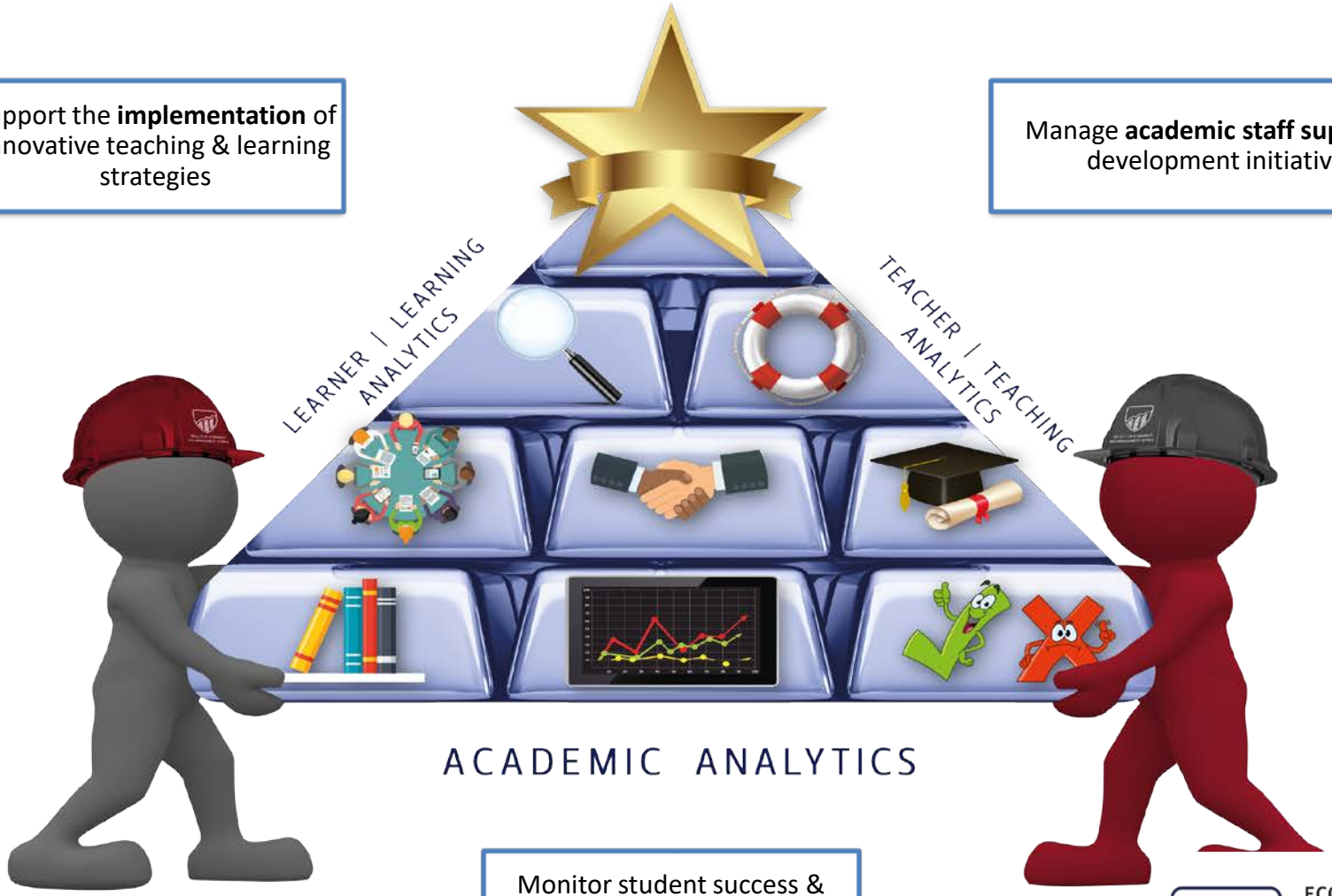
# EMS DATA ANALYTICS FRAMEWORK

Support the **implementation** of innovative teaching & learning strategies

Manage **academic staff support** & development initiatives




Monitor student success & develop **student support** initiatives

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# METHOD: CUAR RESEARCH DESIGN

**Step 1**: Critique phase (Where are we?)

Critical engagement of academics with data was **limited**

**Step 2**: Utopian phase (Where do we want to be?)

Academics to **embrace** the value of the information and to **review TL practices** to stimulate innovation.

Assist in the development of **competencies** linked to being an excellent teacher

**Step 3**: Realisation phase (How would we realise our "Utopia"?)

**EMS Info-tool**

(Interactive data analytics tool)

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# INSTITUTIONAL MODULE EVALUATION REPORT

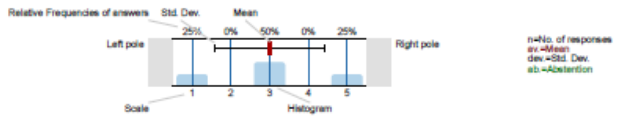


## Economics/ Ekonomie
EECF1614_Muller

A total of 402 respondents completed the questionnaire. Response rate = 99.5%

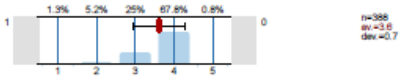
### Legend

Question text

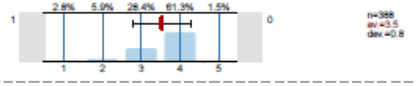



### 1. To what extent do you agree with the following statements? | *Tot watter mate stem jy saam met die volgende stellings?*

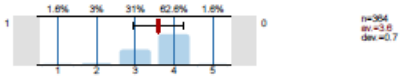
1.1) The use of technology in this module enhanced my learning (e.g. Blackboard, mobile learning and other online tools).
*Die gebruik van tegnologie in hierdie module het die wyse waarop ek leer verbeter (bv. Blackboard, mobiele-leer en ander aanlynfunksies).*



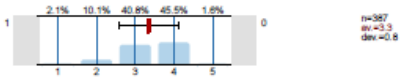

1.2) I felt motivated to learn for this module.
*Ek het gemotiveerd gevoel om vir hierdie module te leer.*



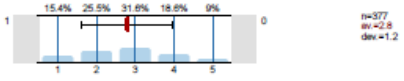

1.3) Adequate support was provided to help me be successful in this module (e.g. tutorials, additional reading material, practical exercises).
*Genoegsame ondersteuning is gebied om my te help om sukses in hierdie module te behaal (bv. tutoriaal-sessies, addisionele leesstof, praktiese aktiwiteite).*



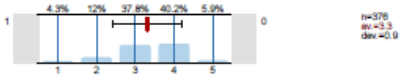

1.4) The workload in this module was manageable.
*Die werkslading in hierdie module was hanteerbaar.*



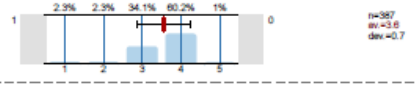

1.5) I felt comfortable to express myself in class.
*Ek was gemaklik om myself in die klas uit te druk.*



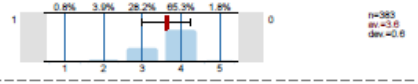

1.6) I was satisfied with the library and/or digital resources available for this module.
*Ek was tevrede met die beskikbare bronne in die biblioteek en/of elektroniese bronne vir die module.*



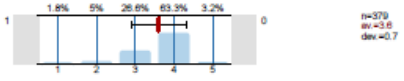

1.7) I understood what I was supposed to learn.
*Ek het verstaan wat ek veronderstel was om te leer.*




1.8) The learning materials helped me to learn.
*Die studiemateriaal het my gehelp om te leer.*

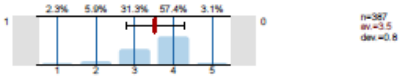



1.9) Feedback on my assessment was provided within the specified time (as indicated by the lecturer).
*Terugvoer oor my assessering was binne die gespesifiseerde tyd gegee (soos aangedui deur die dosent).*

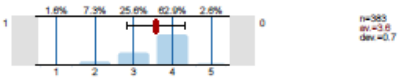



Economics/ Ekonomie, EECF1614_Muller

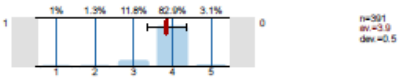
1.10) The marking criteria for assessment were clearly specified.
*Die nasienkriteria vir assessering was duidelik uiteengesit.*




1.11) Feedback on my assessment tasks helped me to understand my mistakes.
*Terugvoer op my assesseringstake het my gehelp om my foute te verstaan.*

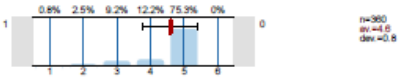



1.12) The lecturer treated all students fairly.
*Die dosent het alle studente regverdig behandel.*

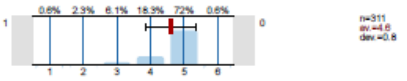



### 2. Rate your lecturer on the following criteria. | *Beoordeel jou dosent op grond van die volgende kriteria.*

2.1) Preparedness for class. | *Voorbereidheid vir klas.*

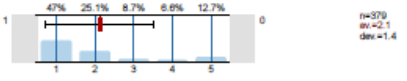



2.2) Communication skills. |
*Kommunikasievaardigheid.*

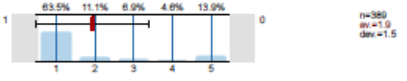



### 3. How often did you communicate with your lecturer? | *Hoe gereeld het jy met jou dosent gekommunikeer?*

3.1) I communicated with my lecturer face to face about the module
(e.g. after class, during consultation hours).
*Ek het van aangesig tot aangesig met my dosent oor die module gekommunikeer (bv. na klas, tydens spreekure).*




3.2) I communicated with my lecturer online about the module
(e.g. via email, Facebook, Blackboard).
*Ek het aanlyn met my dosent oor die module gekommunikeer
(bv. deur e-pos, Facebook, Blackboard).*




### 4. Your comments | *Jou kommentaar*

4.1) What aspects of this module helped you to learn? | *Watter aspekte van hierdie module het jou help leer?*

Every aspects from the module learn.

All aspects, especially the PPC and the Monopoly

The lecturer gives feedback in class so we are able to ask her where we do not understand and that really helped me.

The helpfull lecturer

# EMS DATA DAYS

**Collection**

- Module specific over a 3 year rolling cycle
- Capturing

**Analysis**

- Quantitative and Qualitative data
- Triangulation

**Reporting**

- One-on-one with academic staff
- EMS Info-tool

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# DATA SOURCES

| | |
|---|---|
| Learning analytics | ❖ Institutional module evaluation<br>❖ Classroom Survey on Student Engagement (CLASSE)<br>❖ Self-compiled employability questionnaire<br>❖ Student focus group interviews |
| Academic analytics | ❖ Institutional student & staff database (HEDA) |
| Teaching analytics | ❖ Academic staff questionnaires (Stakeholder involvement, Curriculum & student support, student employability, general module overview)<br>❖ Classroom Survey on Student Engagement (CLASSE)<br>❖ Artefact analysis (e.g. teaching & learning activities, study guide, assessments, etc.)<br>❖ Assessment (moderation reports, peer review) |

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# EMS INFO-TOOL

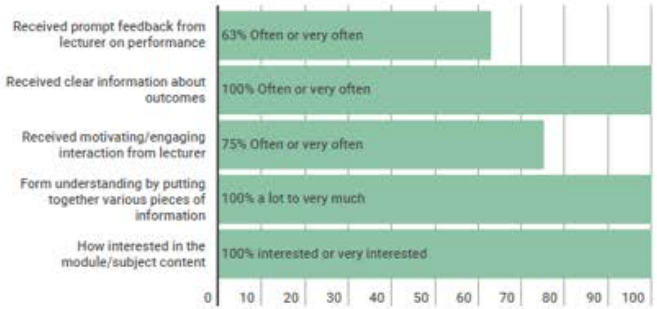
UFS UV

## ENOV 2624

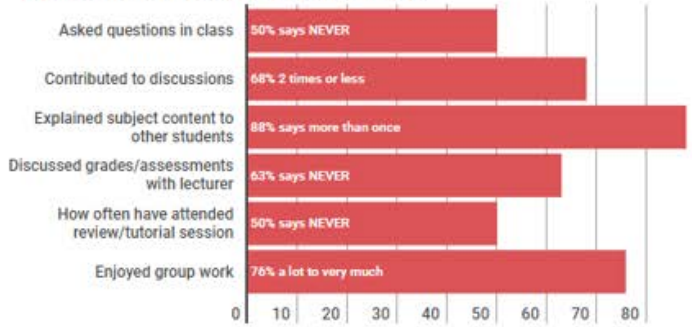
### General Student Information

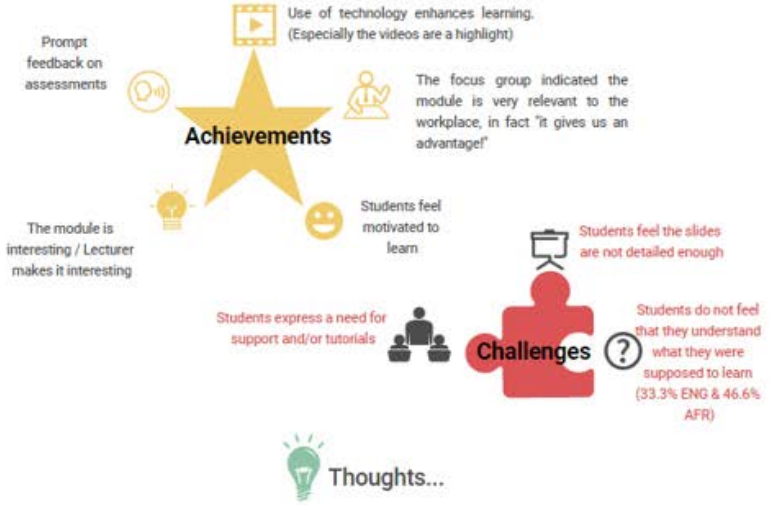
| | 2015 | 2016 | 2017 |
|---|---|---|---|
| Success rate | 76.9% | 90.5% | 65.1% |
| No students enrolled | 195 | 201 | 175 |
| Age of majority | 21 or older | 22 or older | 21 or older |
| Average AP of enrolled students | 31 | 31 | - |
| Language of majority | ENG (75%) | ENG (72%) | ENG (74%) |
| Gender of majority | F (55%) | F (60%) | F (55%) |
| Race of majority | African (48%) | African (52%) | African (65%) |
| % Enrolled from other faculties | 56% | 69% | 53% |

### Student-Lecturer engagement: ALIGNED




### Student-Lecturer engagement: GAP

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# REPORTING: GENERAL STUDENT INFORMATION

UFS UV

**ENOV 2624**

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Institutional Database

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# REPORTING: GENERAL STUDENT INFORMATION

UFS UV

## ENOV 2624

### General Student Information

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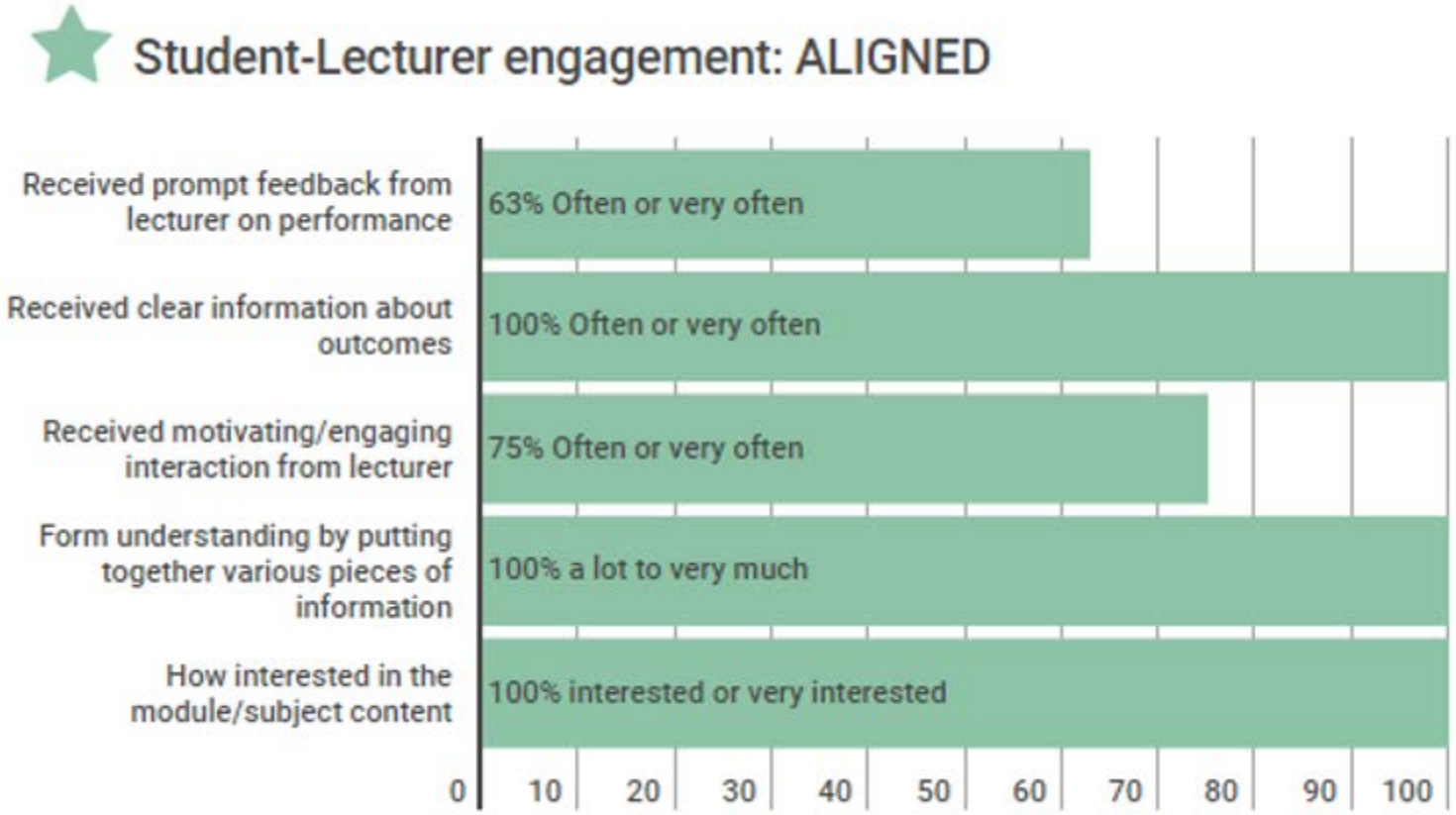
# REPORTING: ENGAGEMENT (ALIGNED)




CLASSE

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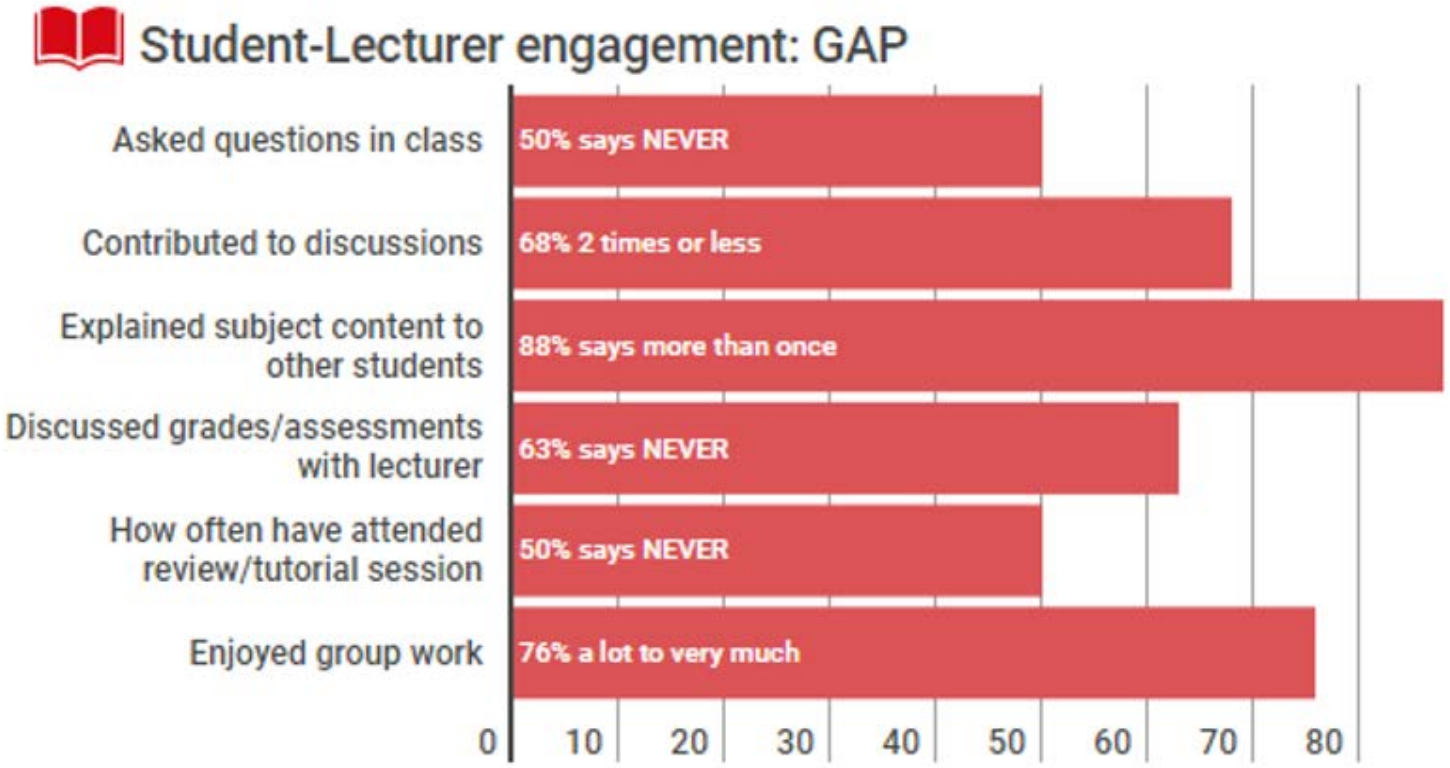
# REPORTING: ENGAGEMENT (MISALIGNED)




CLASSE

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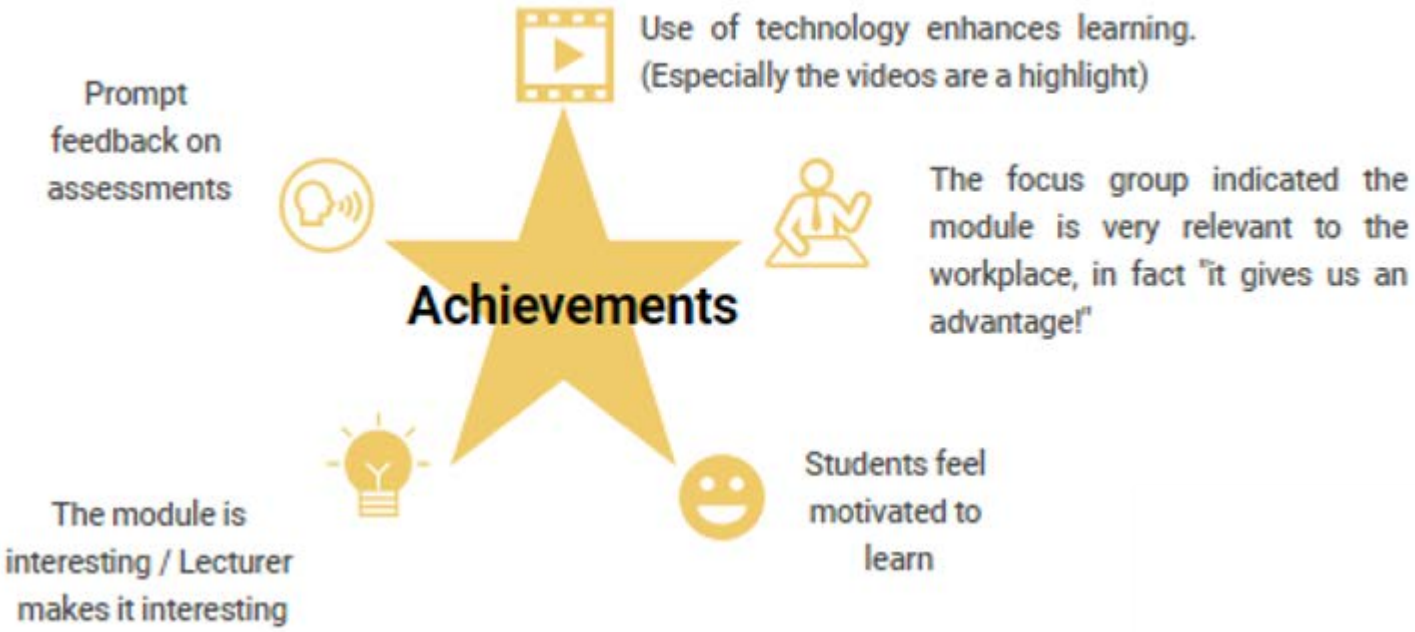
# REPORTING: ACHIEVEMENTS




Student focus groups
Module evaluations
Employability

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# REPORTING: CHALLENGES

Student focus groups
Module evaluations
Employability

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# REPORTING: REFLECTION

Possible support initiatives

Alterations to presentation approach

Assessment methods & criteria

Academic staff questionnaires

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# MANAGEMENT OUTCOMES

*Data Analytics as management tool*

**Initiates critical conversation among academic staff and management**

**Reflection by academic staff, HoD and management to inform Faculty teaching and learning strategies**

**Support from Teaching and Learning Office for academics**

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# ACADEMIC STAFF OUTCOMES

*Scholarly development of teachers*

**Academic staff value data and analytics as complementary to teaching efforts**

**Academic staff visit TL Office more frequently to explore analytic opportunities (Self- and student development)**

**Academic staff research, develop and evaluate own support initiatives (SoTL)**

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# STUDENT OUTCOMES

| Module success rate | 2017 | 2018 | |
|---|---|---|---|
| EMS Faculty | 72% | 74% | 2% |
| ENOV2624 | 65% | 78% | **13%** |

# WAY FORWARD

Profiling repeating students

More frequent reporting (profile tables, student info-tool & postgraduate modules)

Measuring impact / value over time

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# THANK YOU

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