

# Design of an e-assessment strategy to inform learning analytics at the UFS

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**“My team is having trouble thinking outside the box. We can’t agree on the size of the box, what materials the box should be constructed from, a reasonable budget for the box, or our first choice of box vendors.”**

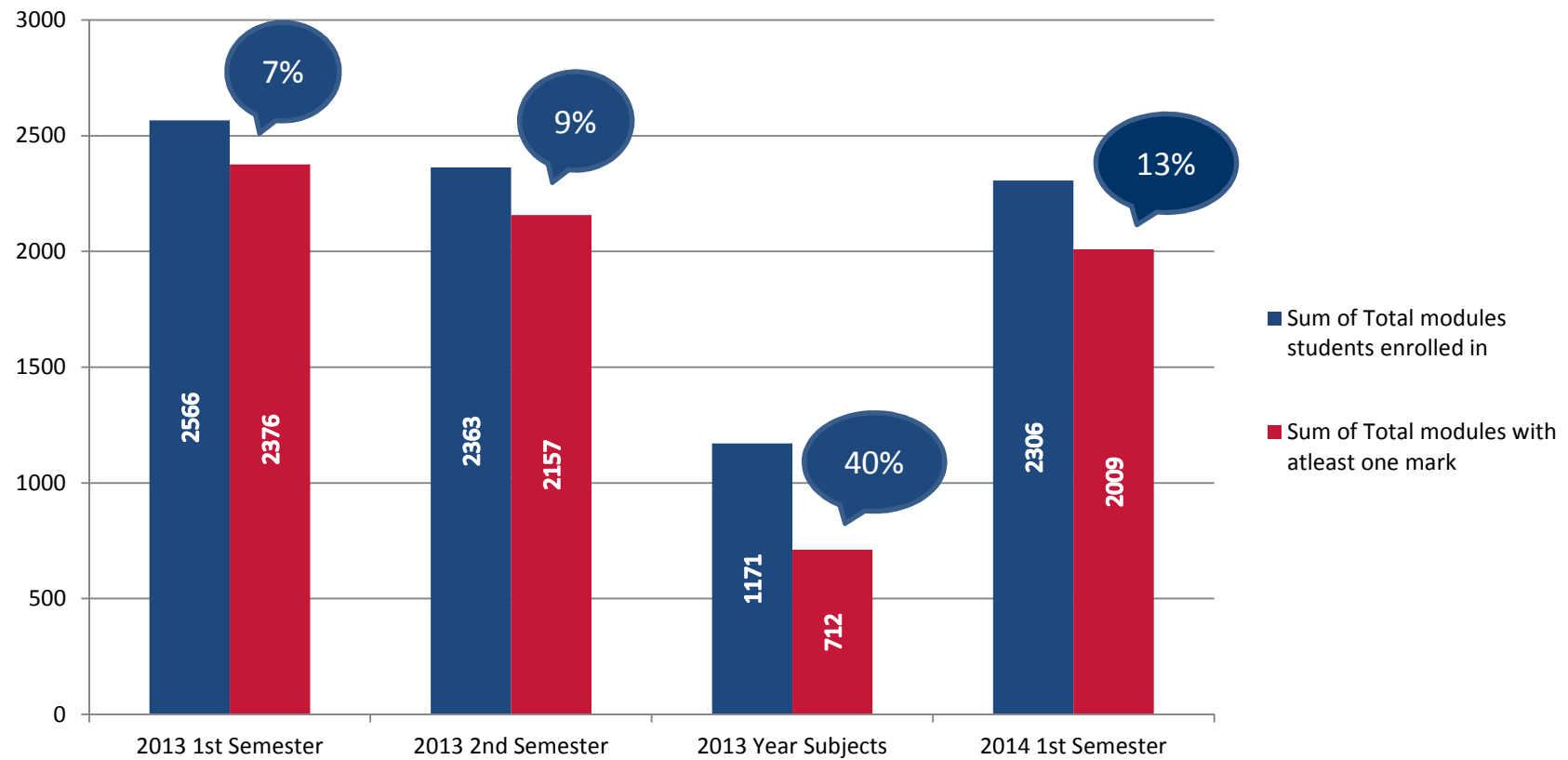
# OUTLINE OF PRESENTATION

- Problem statement of data accessibility and analytics
- E-assessment as a possible solution
- Recommendations towards strategic positioning of E-assessment from an institutional perspective

# BACKGROUND

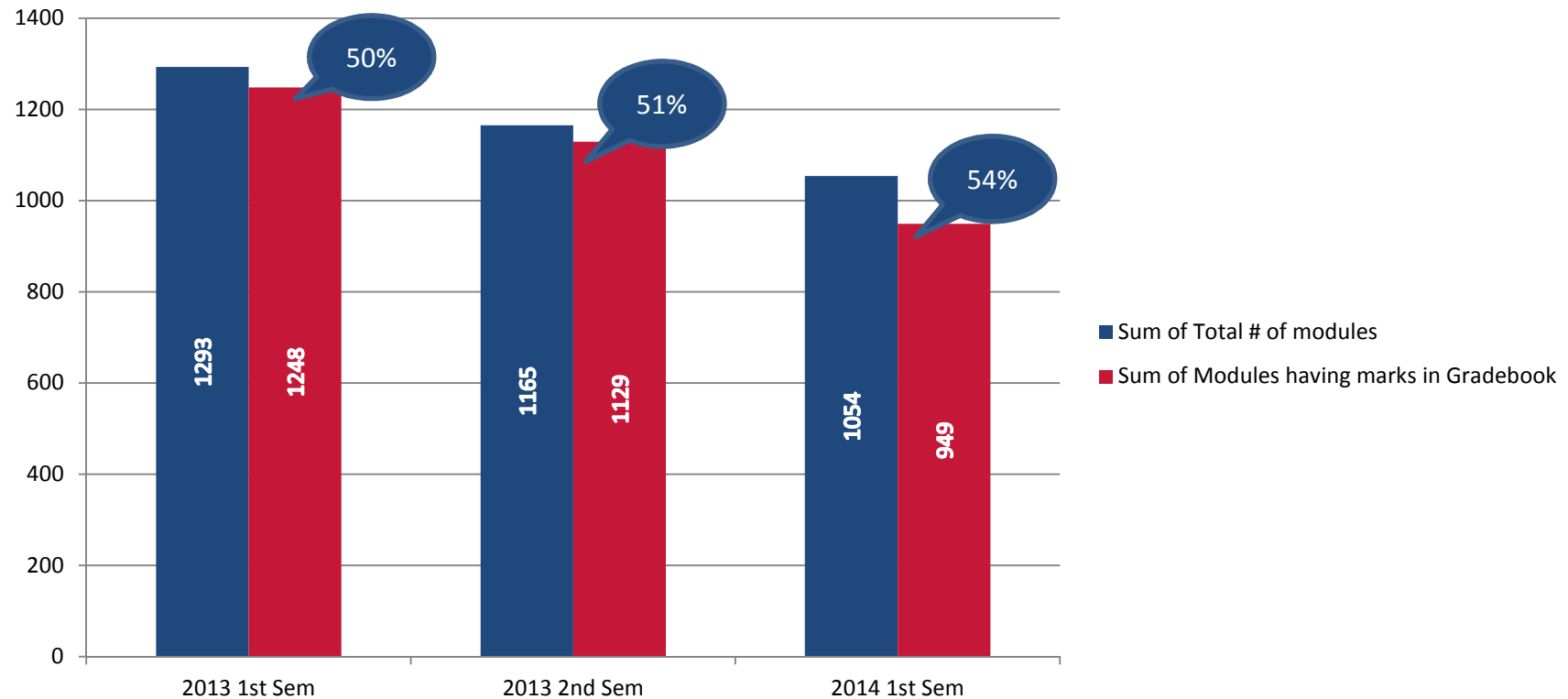
- UFS strategic focus – student throughput and success
- Evidence based approach to adress these issues within TL
  - Module make over
  - Module Assistance Project (MAP)
- Problems: Institutional data accessibility and quality for real-time learning analytics
  - Various data sources & data silos (PS Gradebook, Blackboard, EvaSys, Personal computers)
  - Operational vs. audited data
  - Lack of evidence on regular student activity
  - Gaps in academic workflow & data maintainance

# THE REALITY OF ASSESSMENT DATA



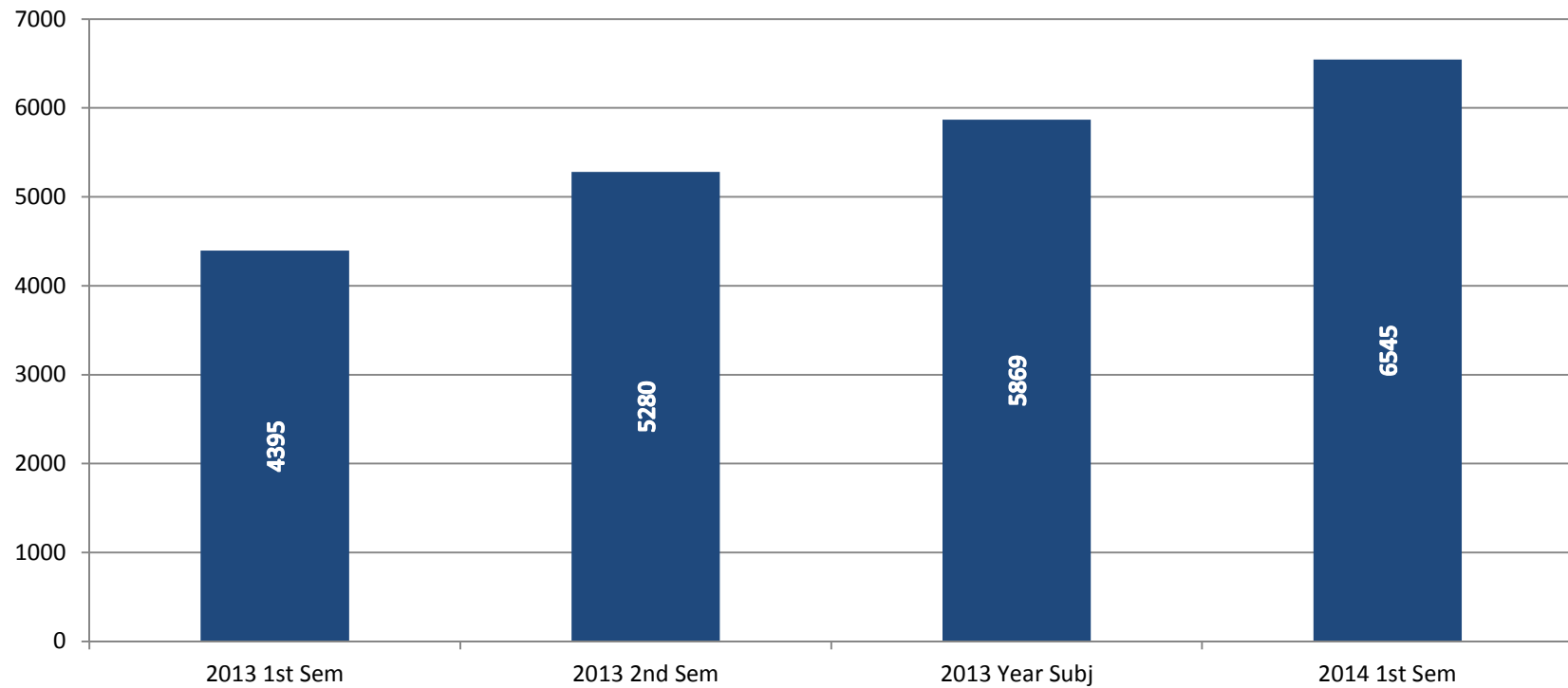
# THE REALITY OF ASSESSMENT DATA

## Modules with two or less assessment activities



# THE REALITY OF ASSESSMENT DATA

**Number of students without at least one assessment mark**



# ASSESSMENT AS CENTRAL PART OF TEACHING & LEARNING

- Assessment and student engagement
- Assessment – impact on student success
- Formative vs. Summative Assessment
  - Formative assessment definition: *“A range of formal and informal assessment procedures employed by teachers during the learning process in order to modify teaching and learning activities to improve student performance”* (Crooks, 2001).
  - Summative assessment definition: *“Summative assessment is commonly referred to as assessment of learning, in which the focus is on determining what the student has learned at the end of a unit of instruction or at the end of a grade level (e.g., through grade-level, standardized assessments). Summative assessment helps determine to what extent the instructional and learning goals have been met”* (Johnson & Jenkins, 2009).
- Traditional reporting based on summative assessment activities
- More frequently available assessment data (formative and summative) will provide more operational data and a better quality data to provide real-time analytics



# TALKING TO ACADEMICS ABOUT ASSESSMENT & DATA

Qualitative data from focus groups (10):

- Class size
- Timelines for assessment and feedback
- Work load
- Assessment policy
- Lack of knowledge of administrative systems

## THE PROMISE OF E-ASSESSMENT.....

- Computer based assessment vs. Computer assisted assessment
- Advantages of e-Assessment (CBA) (Terzis & Economides, 2011):
  - More regular assessment
  - Time and cost savings in terms of grading
  - Quick accessibility to results
  - Automatic record-keeping

## THUS

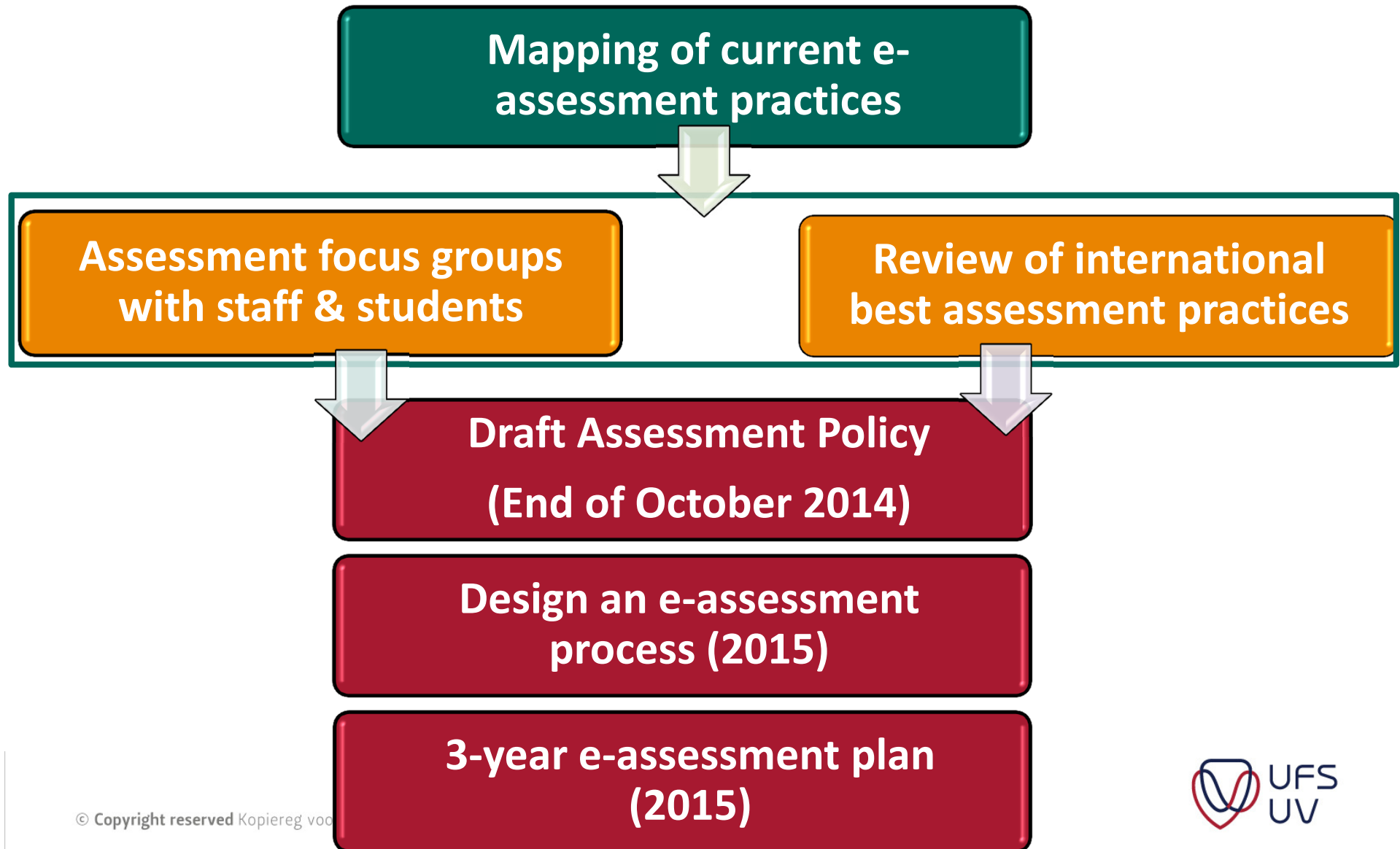
Learning Analytical techniques can be applied



# UNDERSTANDING E-ASSESSMENT AT THE UFS

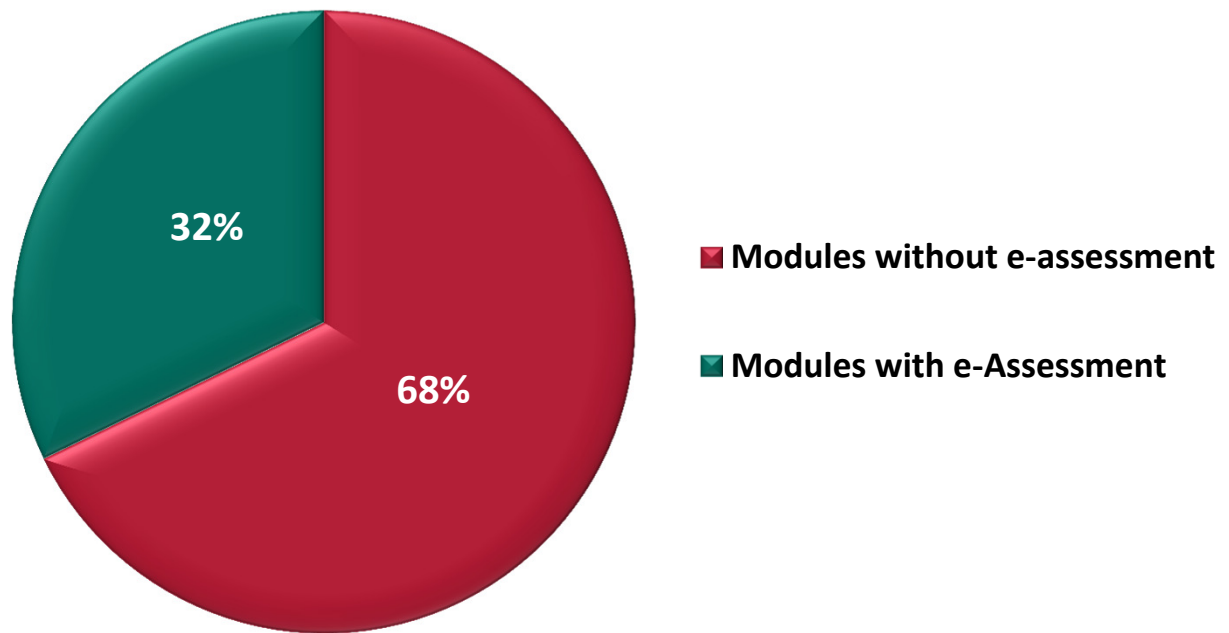
- Currently students electronically assessed (CBA & CAA) mainly through Blackboard
- UFS invested in the deployment of a specialised institutional e-assessment system for CBA
- In preparation for this deployment an institutional mapping of current practices was undertaken

# DESIGNING AN E-ASSESSMENT STRATEGY



# FINDINGS

## Current use of e-assessment at the UFS



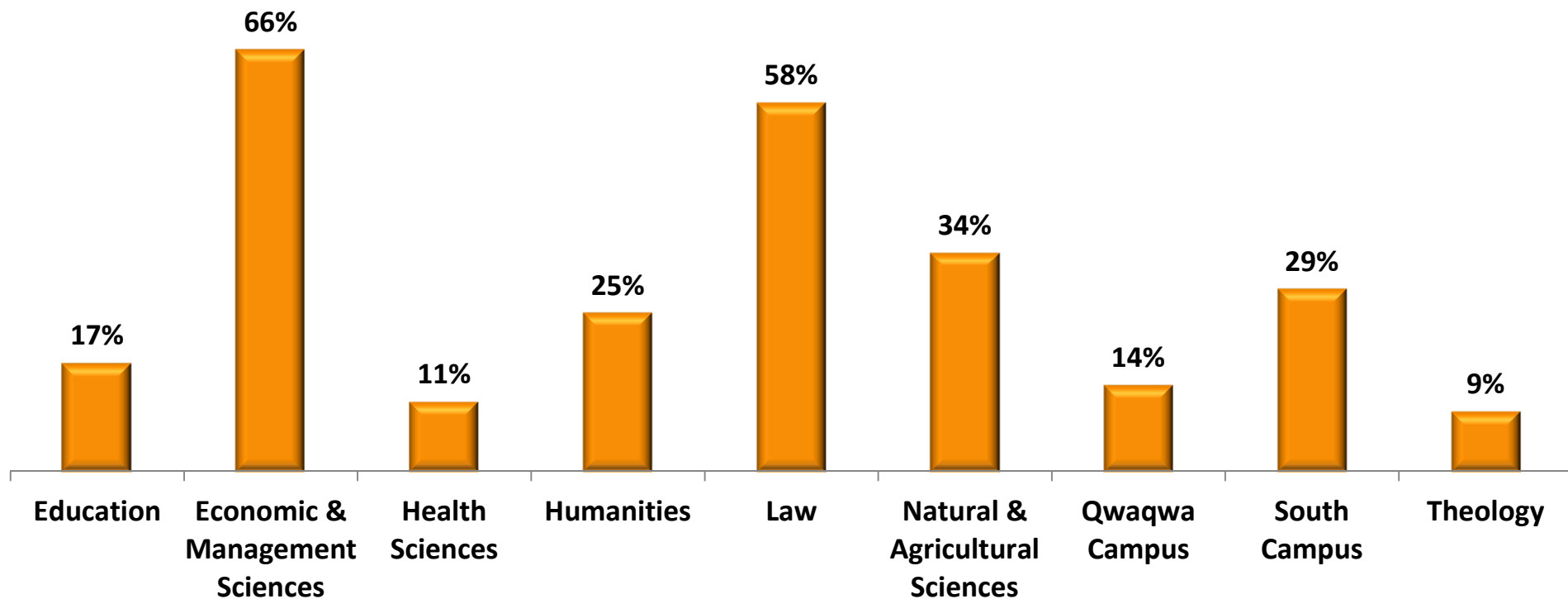
**N=1412**

Modules with e-assessment = 455

Modules without e-assessment = 957

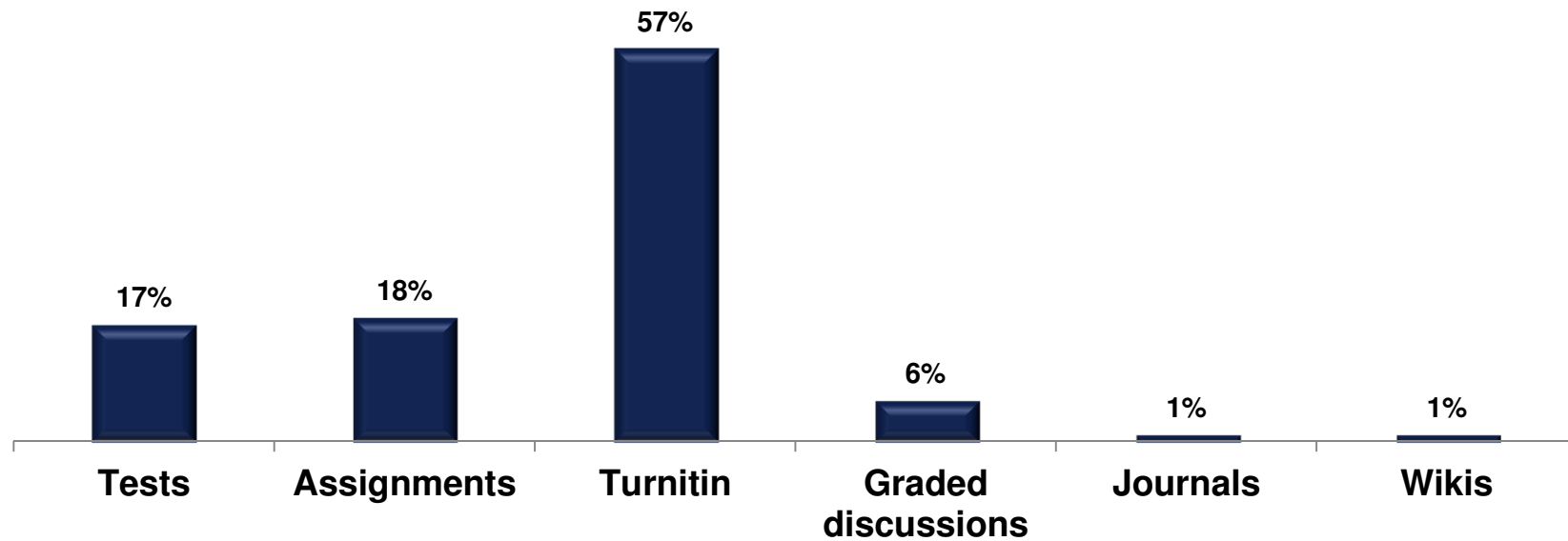
# FINDINGS

## Current use of e-assessment per faculty



# FINDINGS

## Types of e-assessment used



## ADOPTION OF E-ASSESSMENT - WHY ARE ACADEMICS NOT USING IT.....

- Security concerns
- Traditional perspectives on objective assessment (MCQ)
- Institutional infrastructure (computer labs)
- Assessment policy & procedures
- Initial time investment in developing question banks
- System training and support (individual)
- Computer skills (staff & students)





# RECOMMENDATIONS

- Emphasizing on coal-face the value of data (assessment) & learning analytics in supporting TL
  - Helping management understand...
  - Helping academics understand...
  - Helping IR understand...
  - Helping students understand...
- Strategic position of quality in assessment data
  - Top down vs. bottom up
  - Integration of ICT systems
  - Infrastructure & support
  - Policy & procedures
- Training & support
  - Learning designers
  - Assessment team
  - Individual support

# RECOMMENDATIONS

- Measuring the impact....
  - e-Assessment Pilot projects 2015 (11 modules)
  - Larger learning analytics project (40 modules)
  - Click-click project
  - Uncovering the hornet's nest

# THANK YOU



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# REFERENCES

Crooks, T. (2001). *The Validity of Formative Assessments*. British Educational Research Association Annual Conference, University of Leeds, September 13–15, 2001.

Johnson, E. & Jenkins, J. (2009). *Formative and Summative Assessment*. Retrieved from: <http://www.education.com/reference/article/formative-and-summative-assessment/>

Terzis, V., & Economides, A. A. (2011). The acceptance and use of computer based assessment. *Computers & Education*, 56(4), 1032–1044.