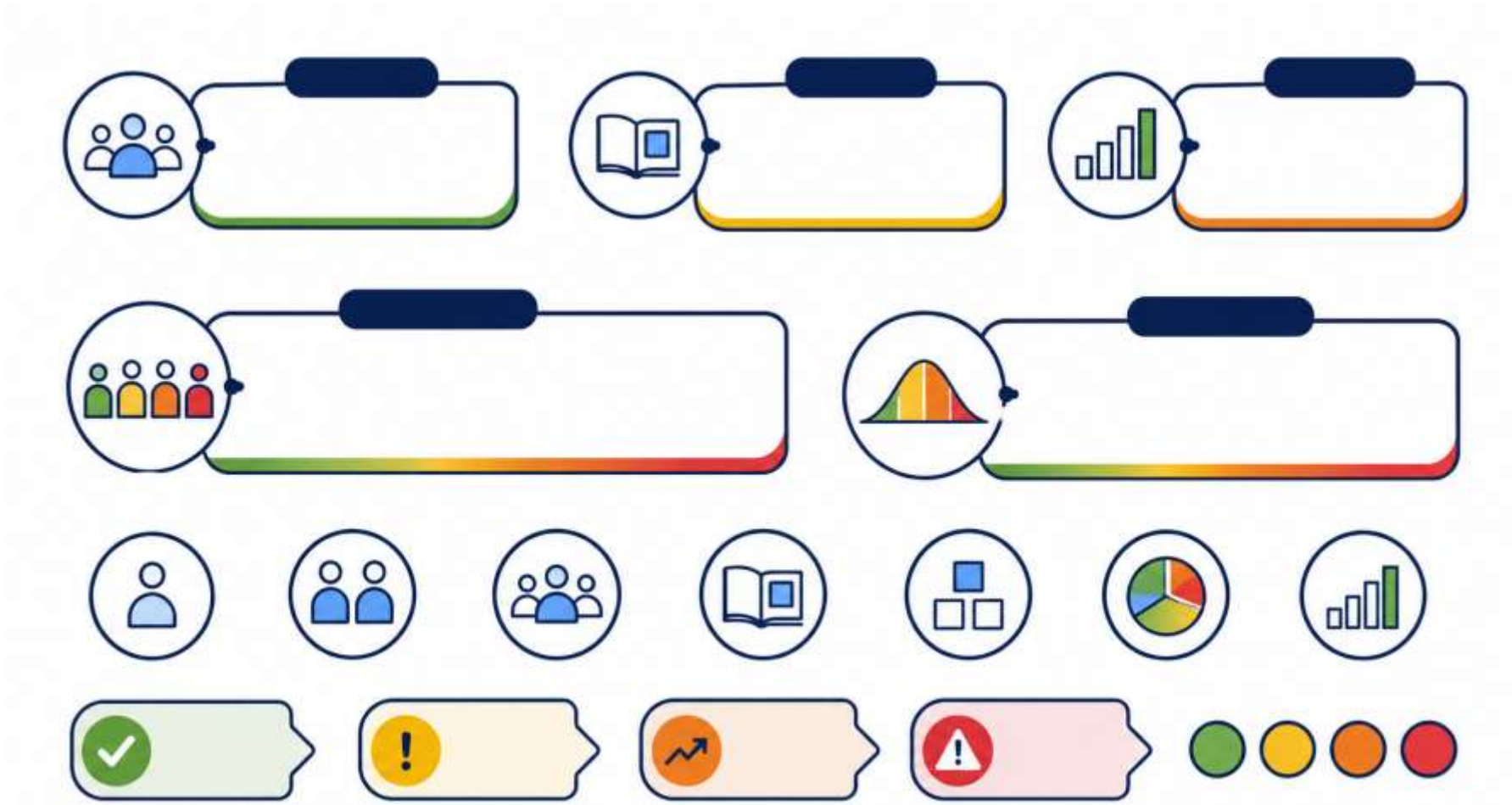
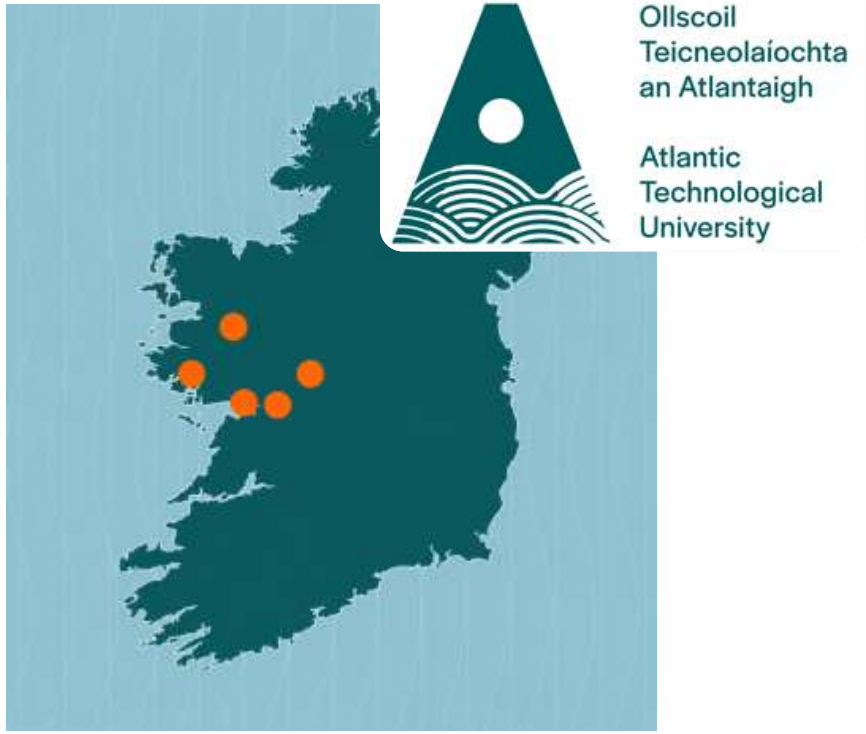
Our VLE in Numbers

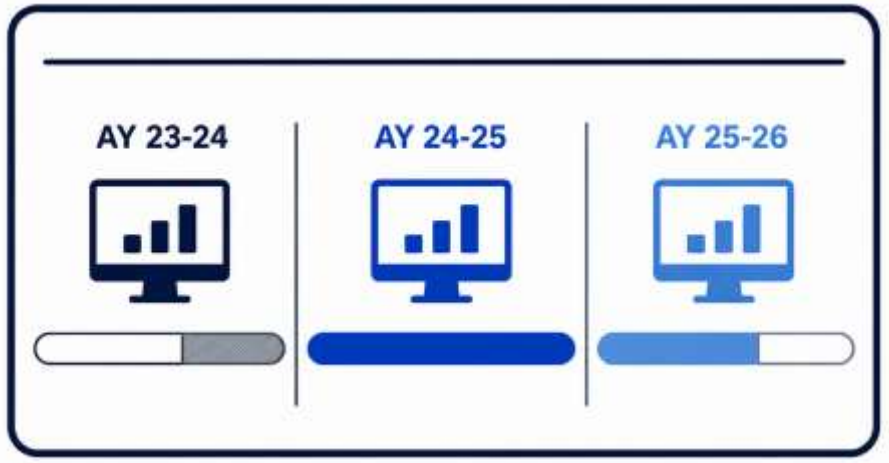


Dr. Cormac Quigley, Dr. Etain Kiely, Esteban Moreno



- 70,735,906 Interactions logged in the VLE
- Live records span ~ two academic years

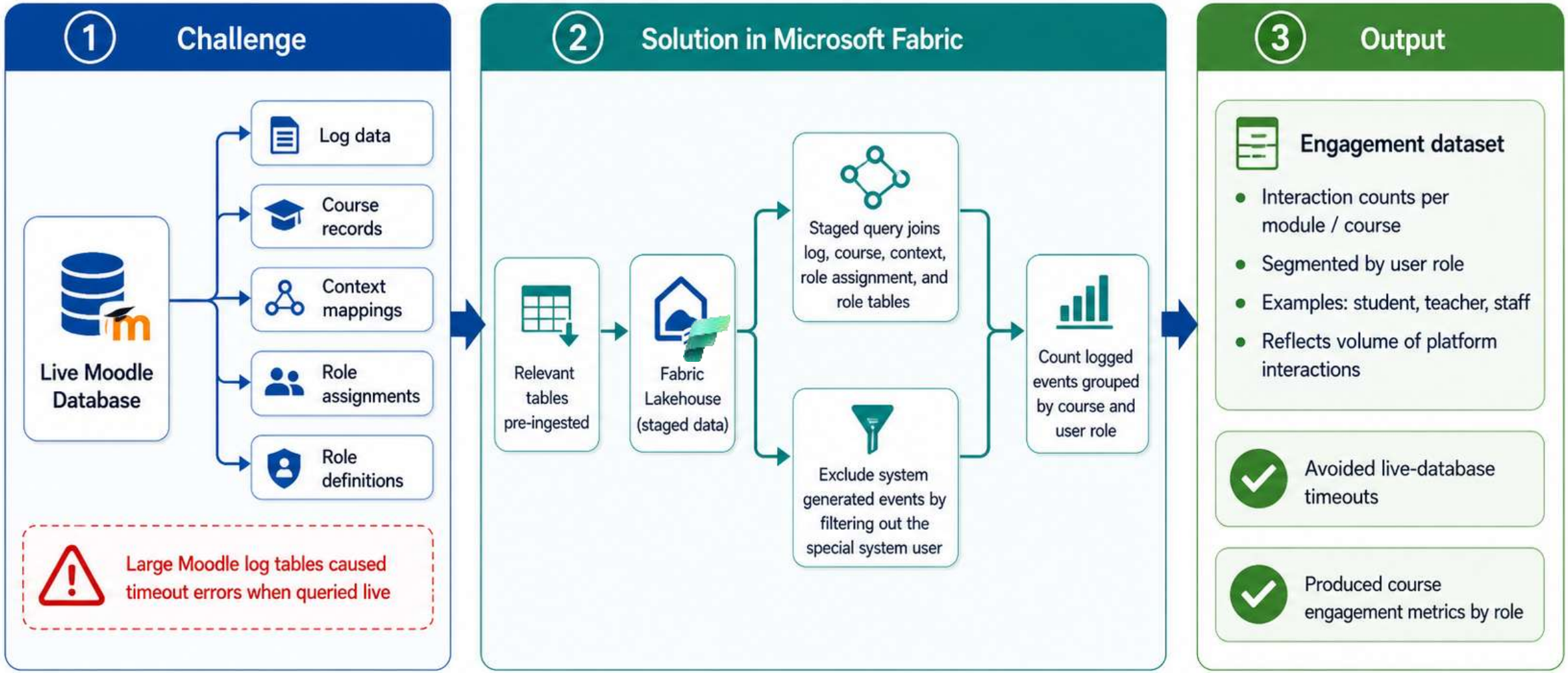
- What does that mean?
- What is an interaction?
- What can we learn from this?



Cutoff 01/03/2026

Extracting Engagement Data from Moodle:

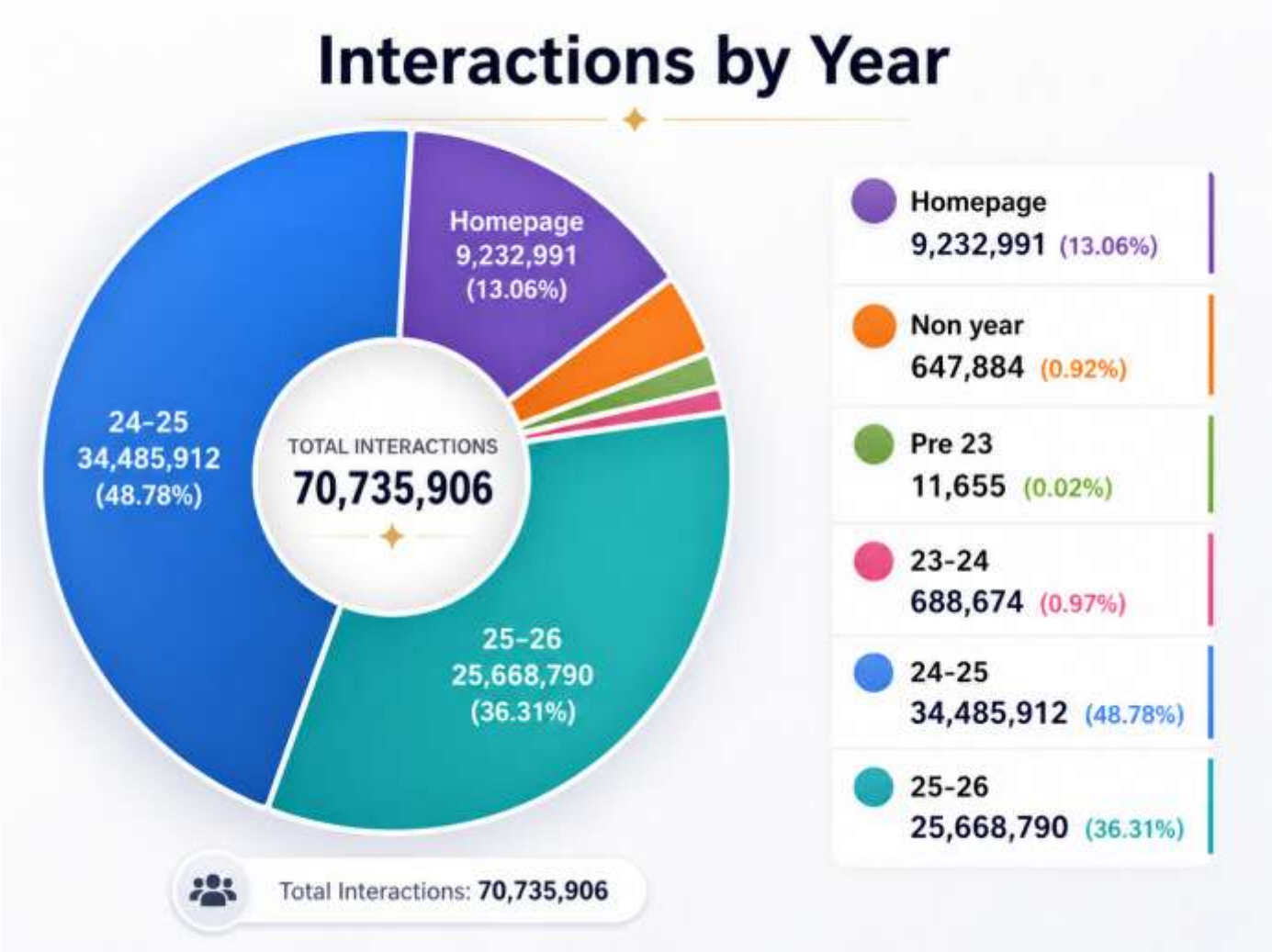
Large Moodle log tables were staged in Fabric to avoid live-query timeouts and produce course engagement counts by user role



Let’s look at student activity:

- 70 Million → 47 Million interactions are student interactions inside course pages

- 9.2 Million interactions with the Moodle landing pages (!)

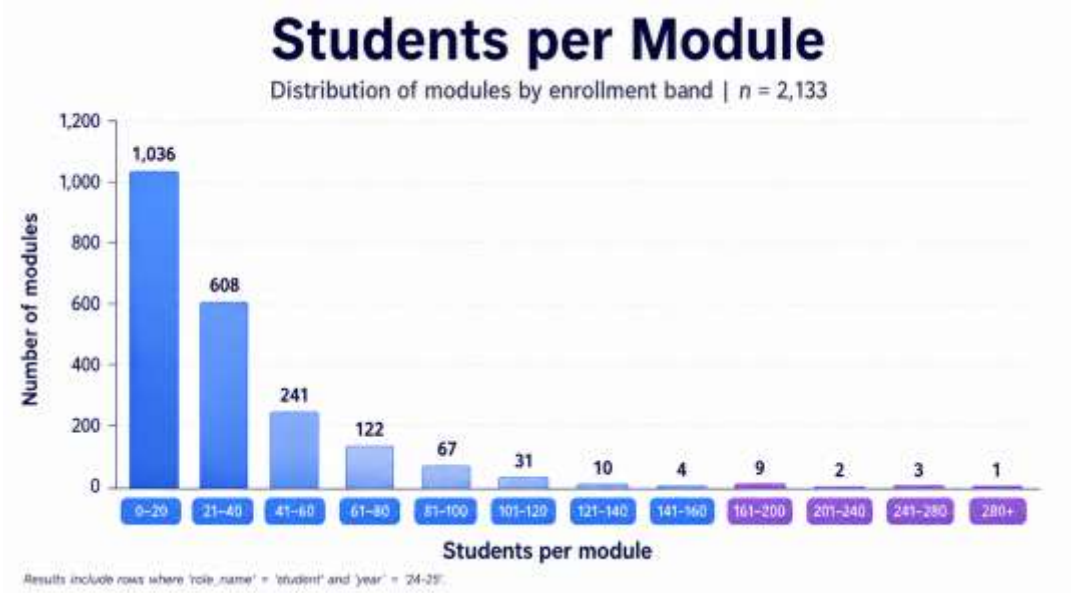


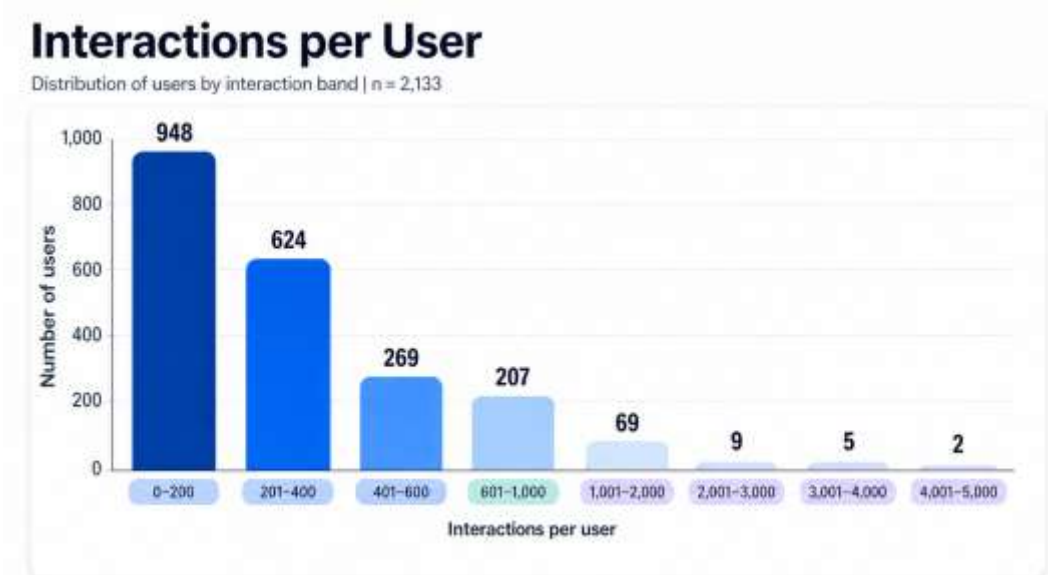
What's in Moodle?

(Up until 1/3/26)

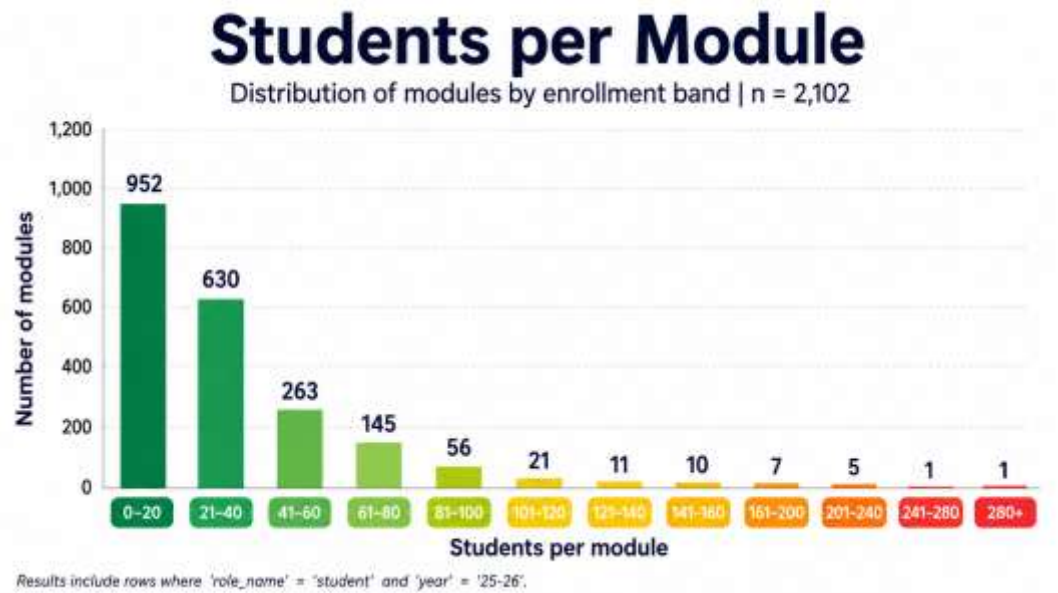
(Full year less any removed data)

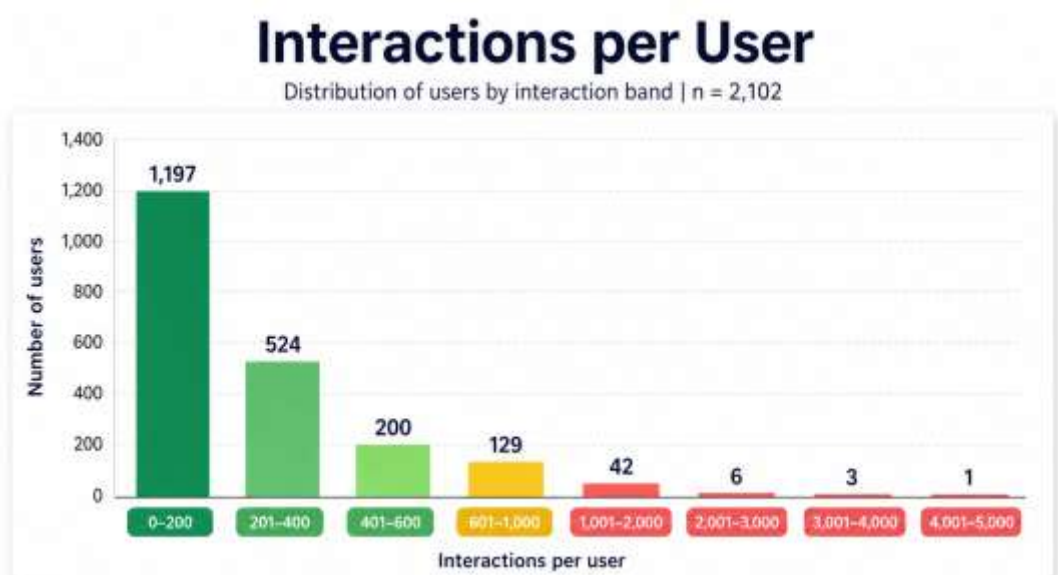
2024-25



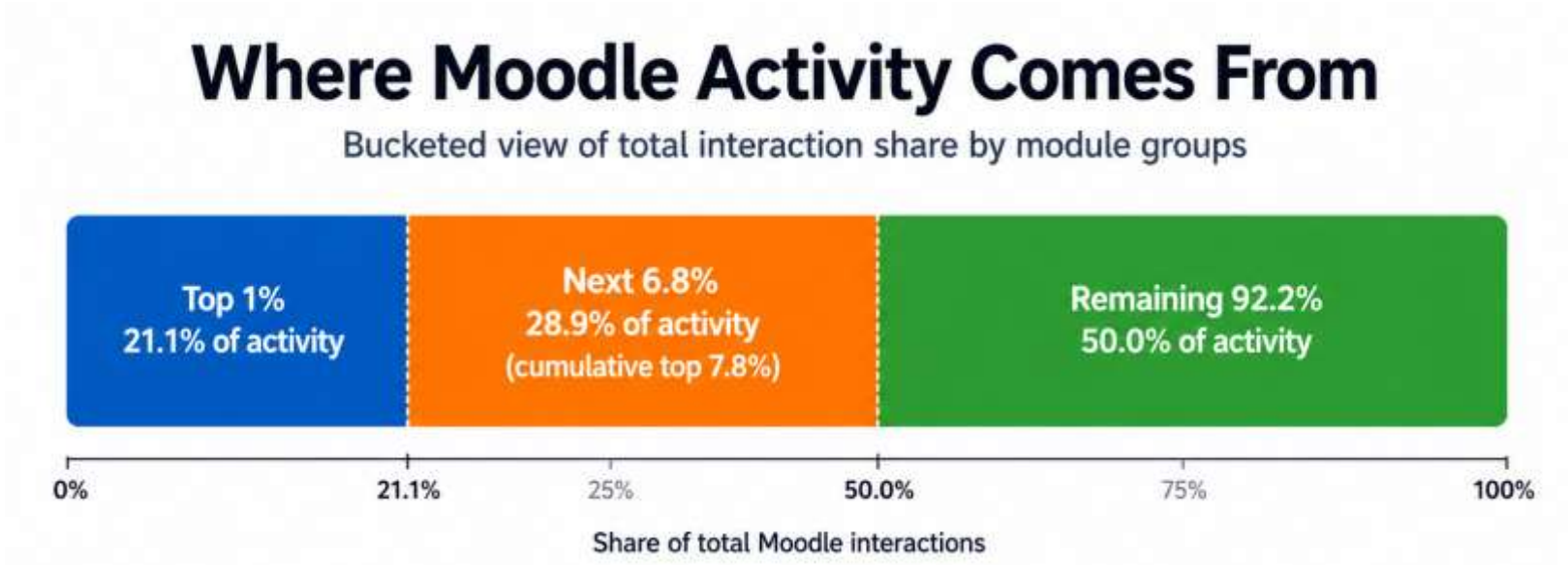


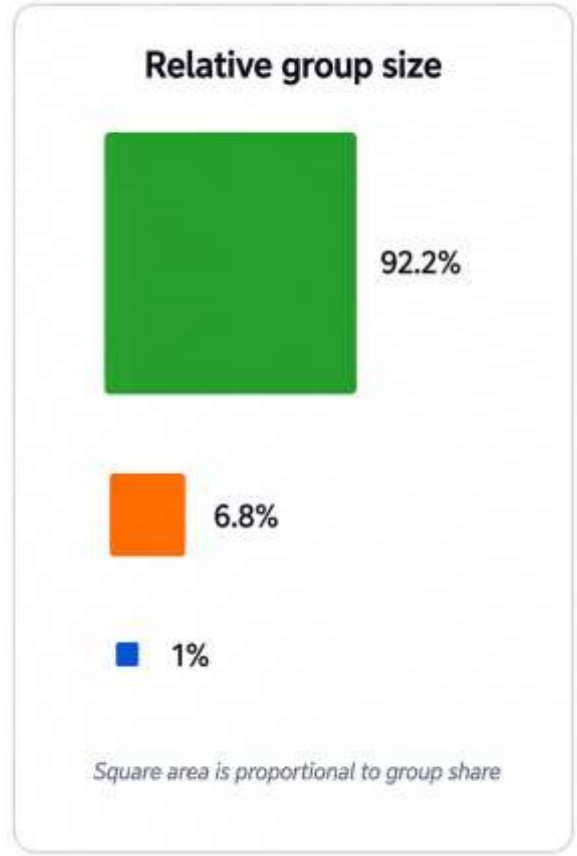
2025-26

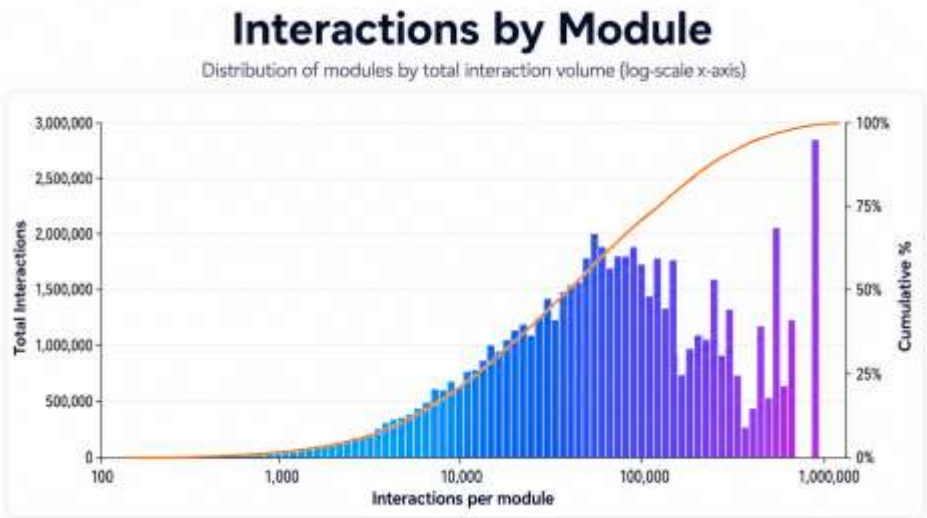




Take home:





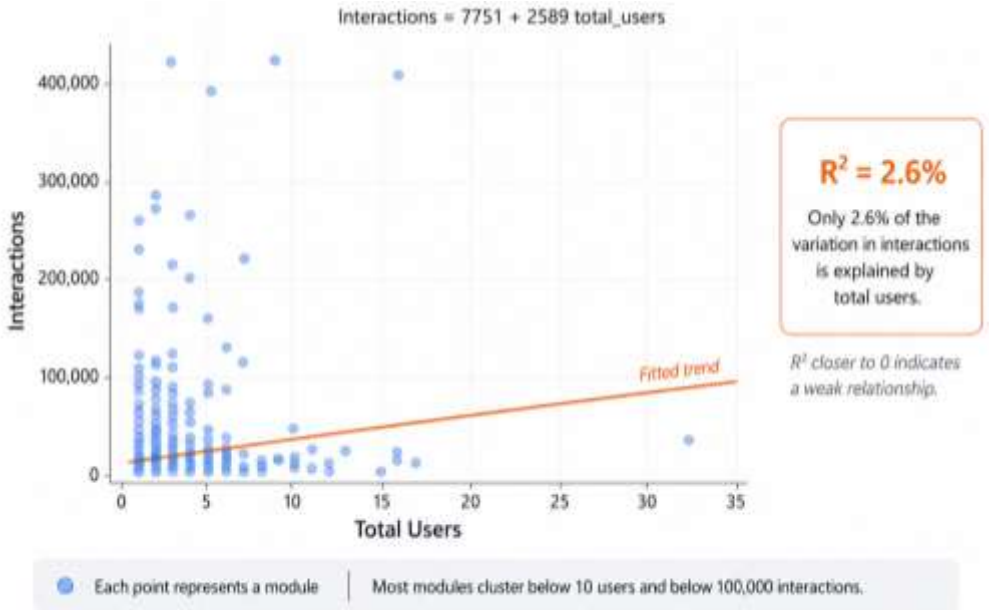


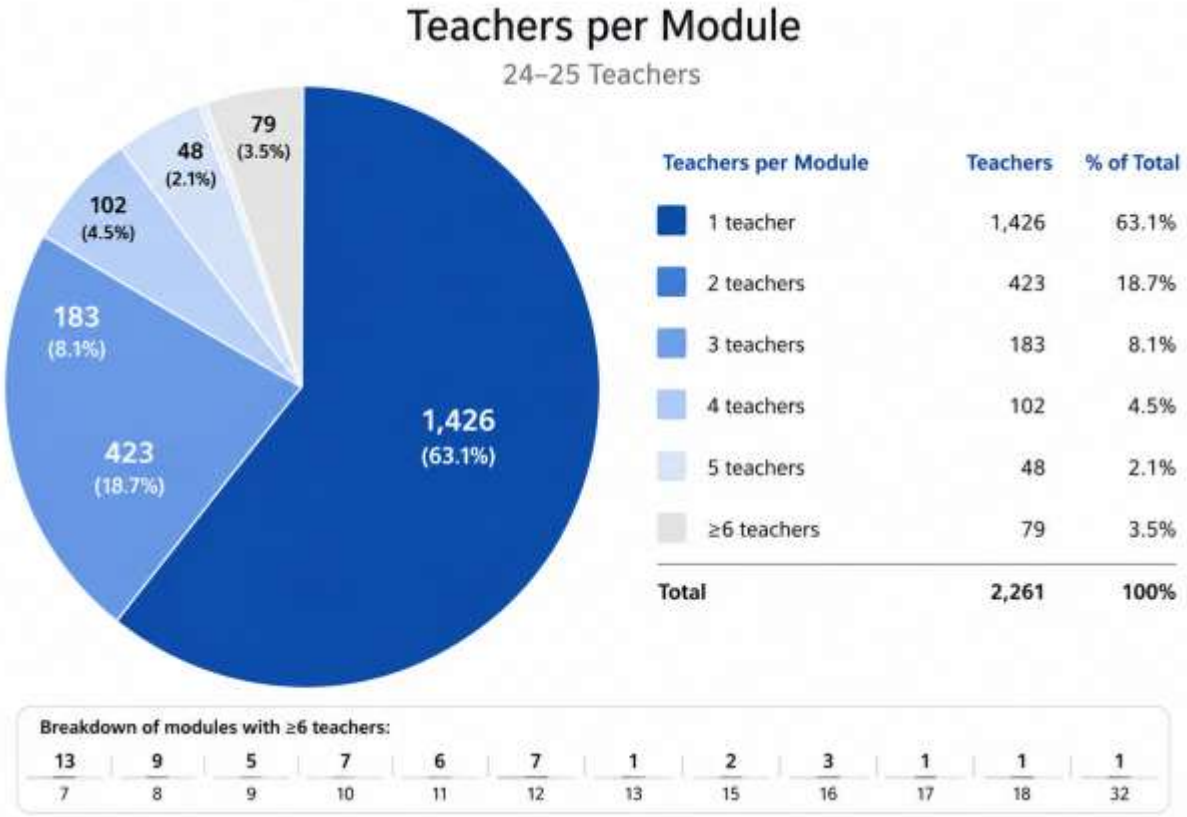
44% of Modules see <200 interactions per student - median is 232 interactions.

50% of all activity is concentrated in <8% of modules.

Is Moodle a collaborative space?

- 63% of modules have only 1 “Teacher”
- (Mean 1.95 teachers per module)
- Less than 5% of modules use the non editing teacher role

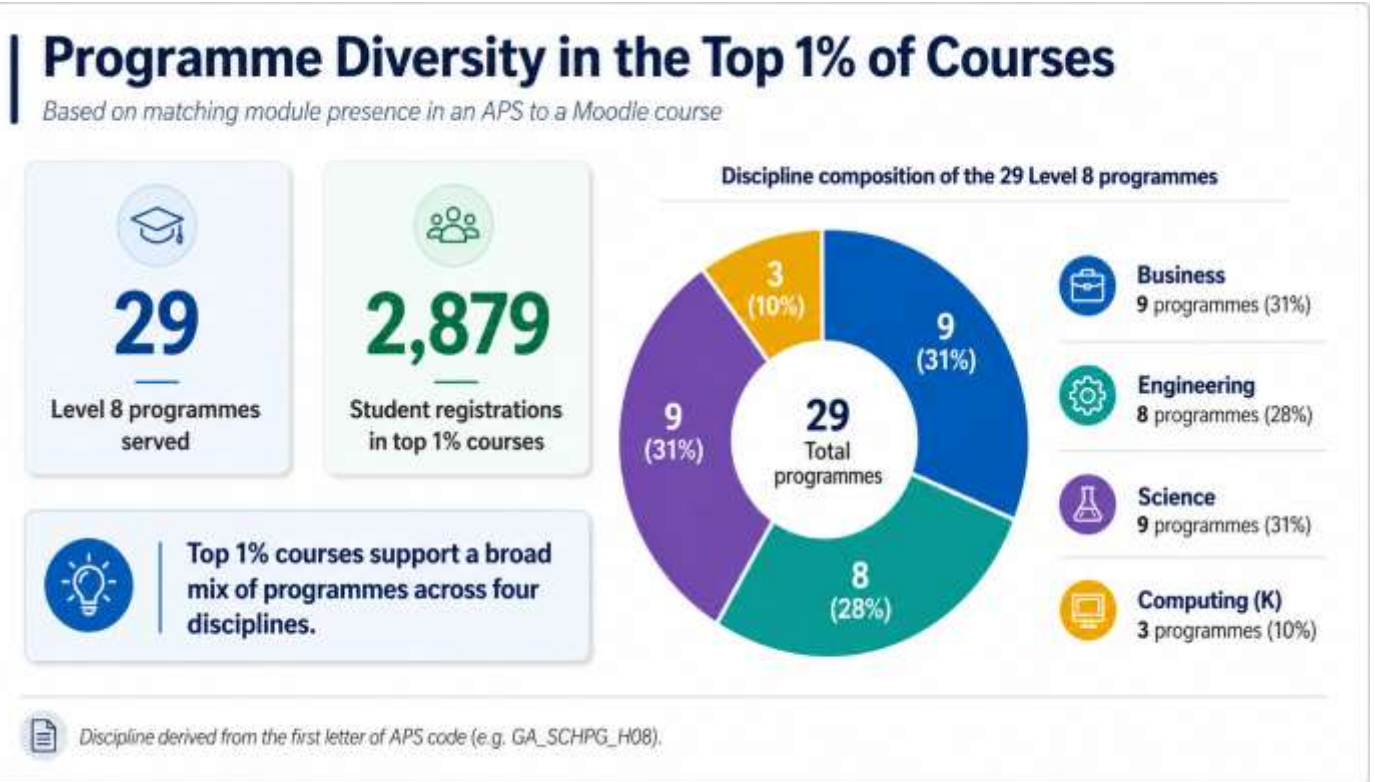


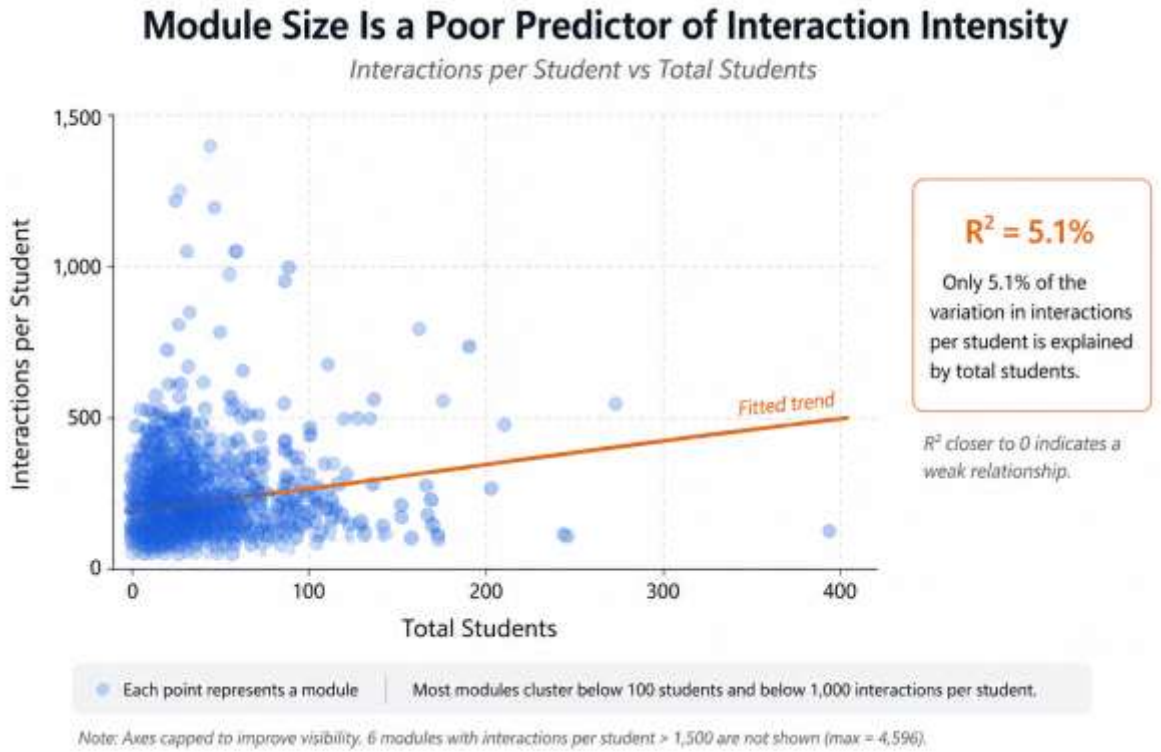


Why?

What are the attributes of high interactivity module?

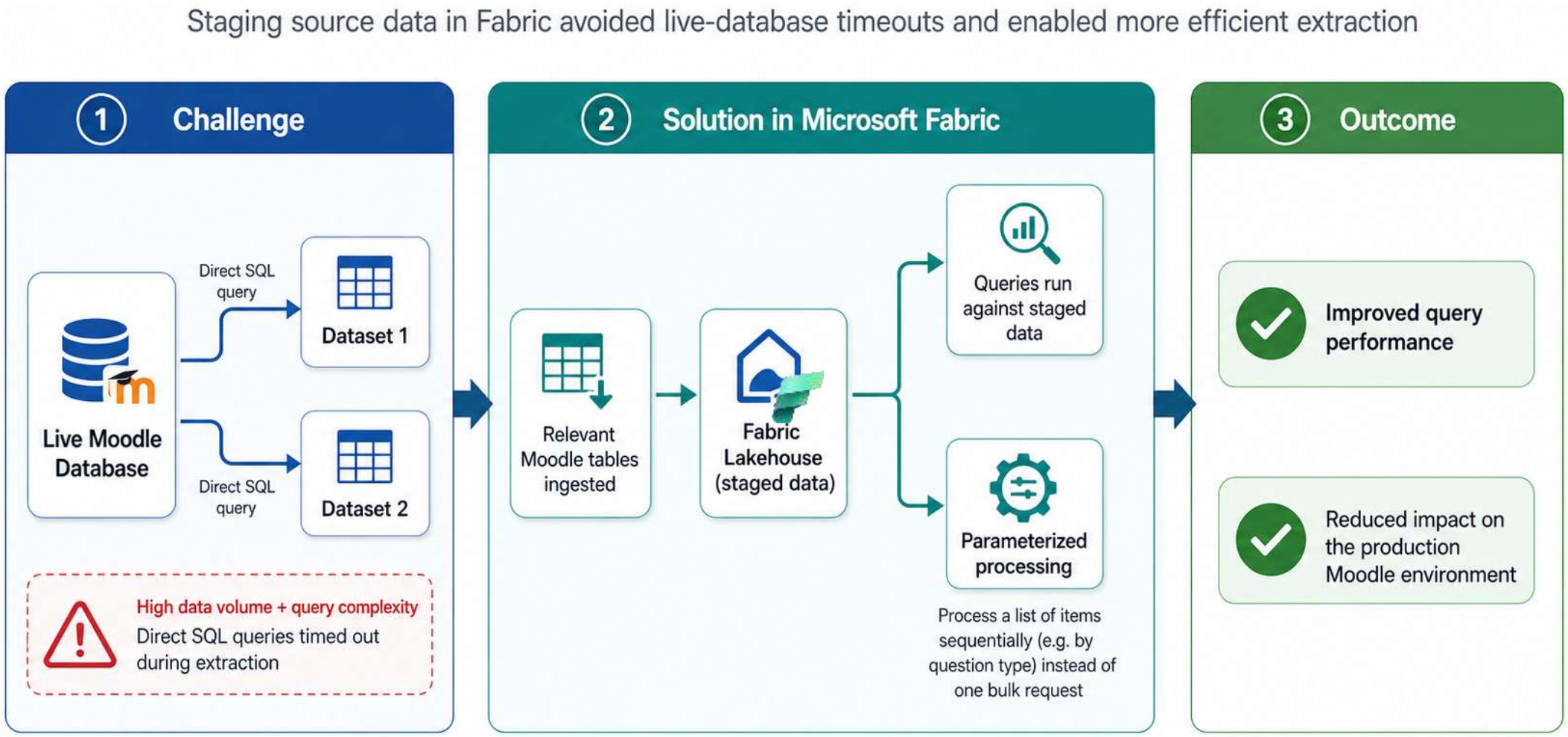
- It isn't constrained to one subject area.





- It isn't constrained to "large" modules

Extracting Feature Data from Moodle:



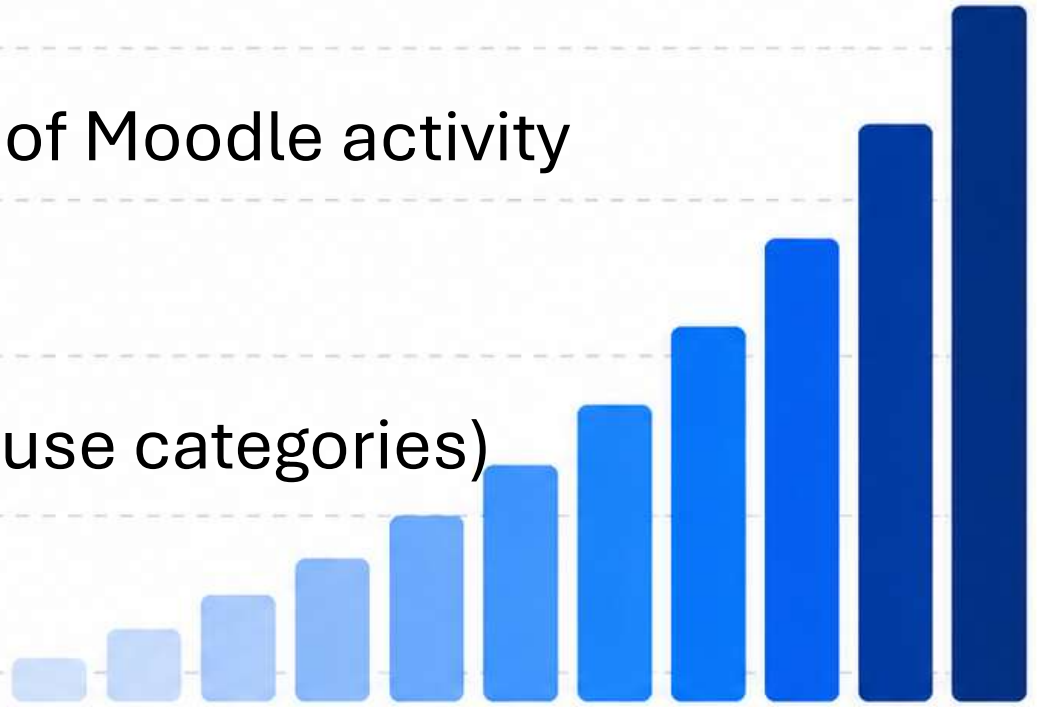
What *are* the features of a high interactivity course?

Complex Grade books:

14% of Modules use Categories → 35% of Moodle activity

62% of Top 1% modules use categories

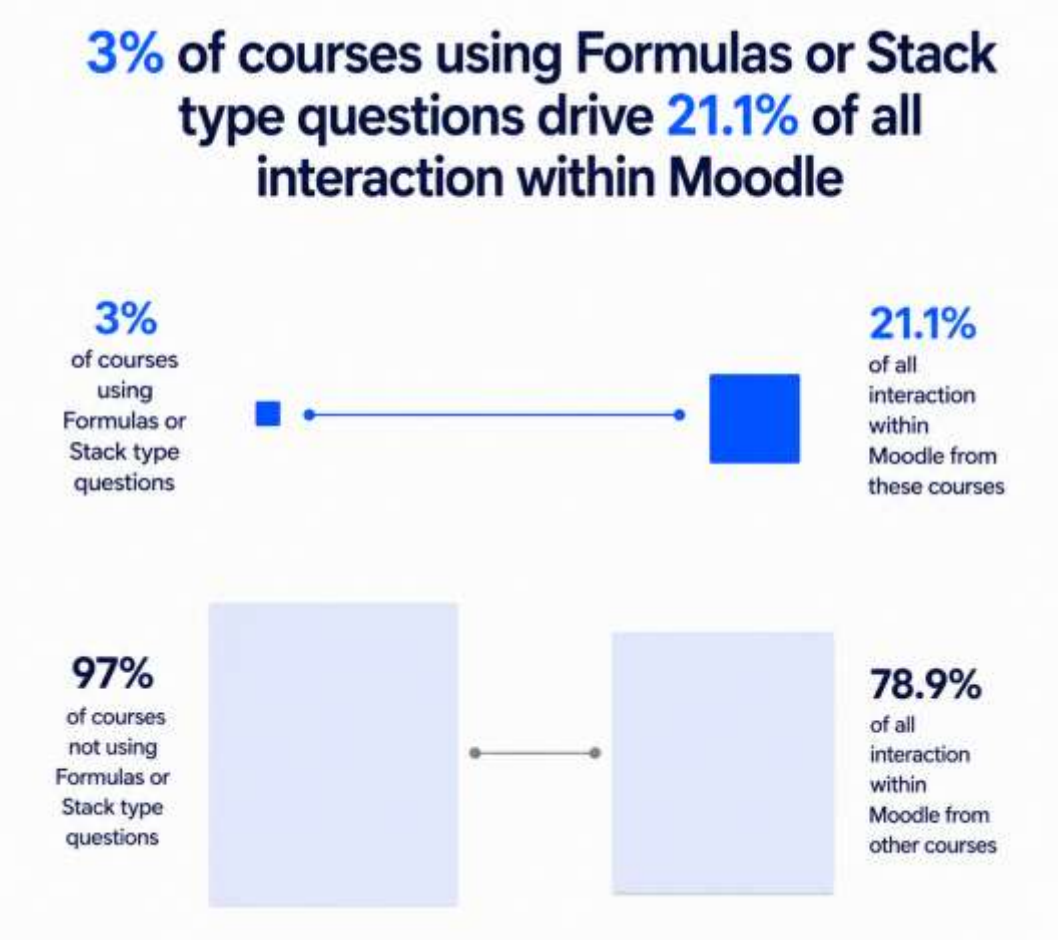
50% of High Activity (>1000 interactions use categories)



Other Features?

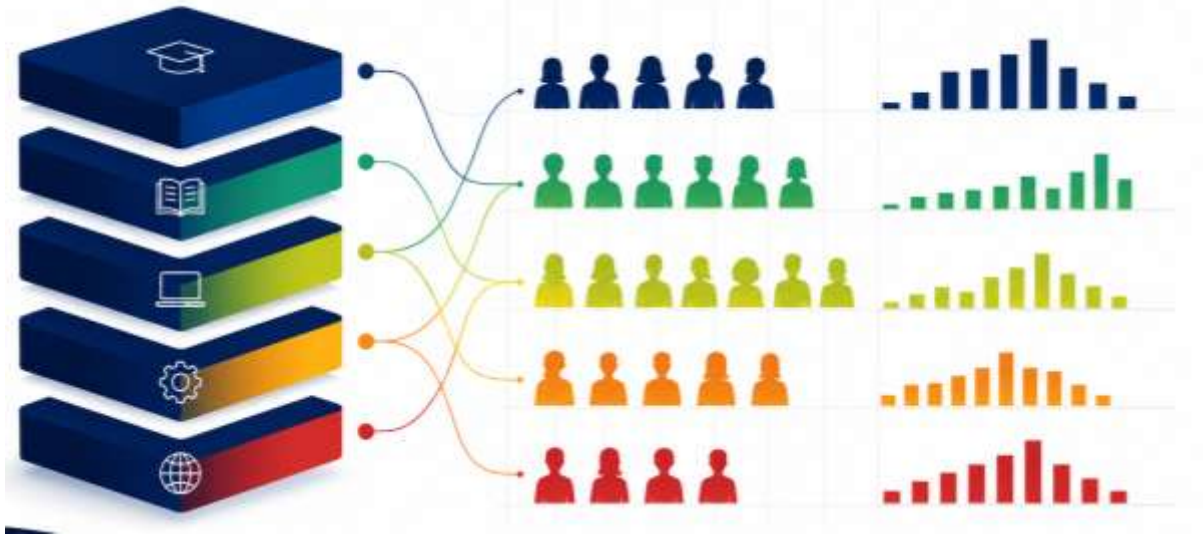
- Assessment variety – not at first glance
- **3,018,448** questions are present in the Moodle question bank!
- Top 1% courses have an average of 9.8 different question types
- High interactivity courses average 8.7
- All courses average 8.0

Specific High Value Assessments



- **3,018,448** questions are present in the Moodle question bank!
- 3% of courses (66) use Formulas or Stack type questions and drive 21.1% of all (14.4% for Formulas, 9.4% for Stack; only 14 use both question types)
- On average 7 times greater than average engagement per module with these question types present.

So what can we say?



1. Evidence based analysis is critical
   - Without quantitation it's all guessing

2. The VLE is inhomogeneous
   - There is enormous diversity in how people teach and how they use the VLE

3. It is a critical dependency for many pedagogical approaches which affect a majority of students across disciplines
   - It enables more than teaching at scale

4. Specific grading and assessment approaches are important

   The VLE has several critical technologies which enable high engagement

REAL Analytics

Reliable, Engaging, Authentic, Learner-focused

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Atlantic Technological University

Funded by TSAF: *(Technological Sector Advancement Fund)*, **WP 5.**

We appreciate your time today!
Please reach out to our REAL Analytics team

Learning Analytics Ecosystem: 4 Dimensions

- **Insight & Retention** – early-warning analytics for equity and student success.
- **Inclusive Communication** – DLSS (Disability & Learning Support Services) integration and secure VLE
- **Feedback for Learning** – adaptive, mastery-oriented feedback pathways.
- **Ethical Governance** – transparent, secure and ethical

Alignment:
CINNTE Report and ATU's **Strategic Plan**

Infrastructure: Powered by Microsoft Fabric, institution-wide scaling, source-agnostic platform (*Banner, VLE, RMS, Entra*...).