MONASH University

MONASH
EDUCATION
PORTFOLIO

LEARNING ANALYTICS

Current and Future State

Monash's Context

Learning Analytics to Date

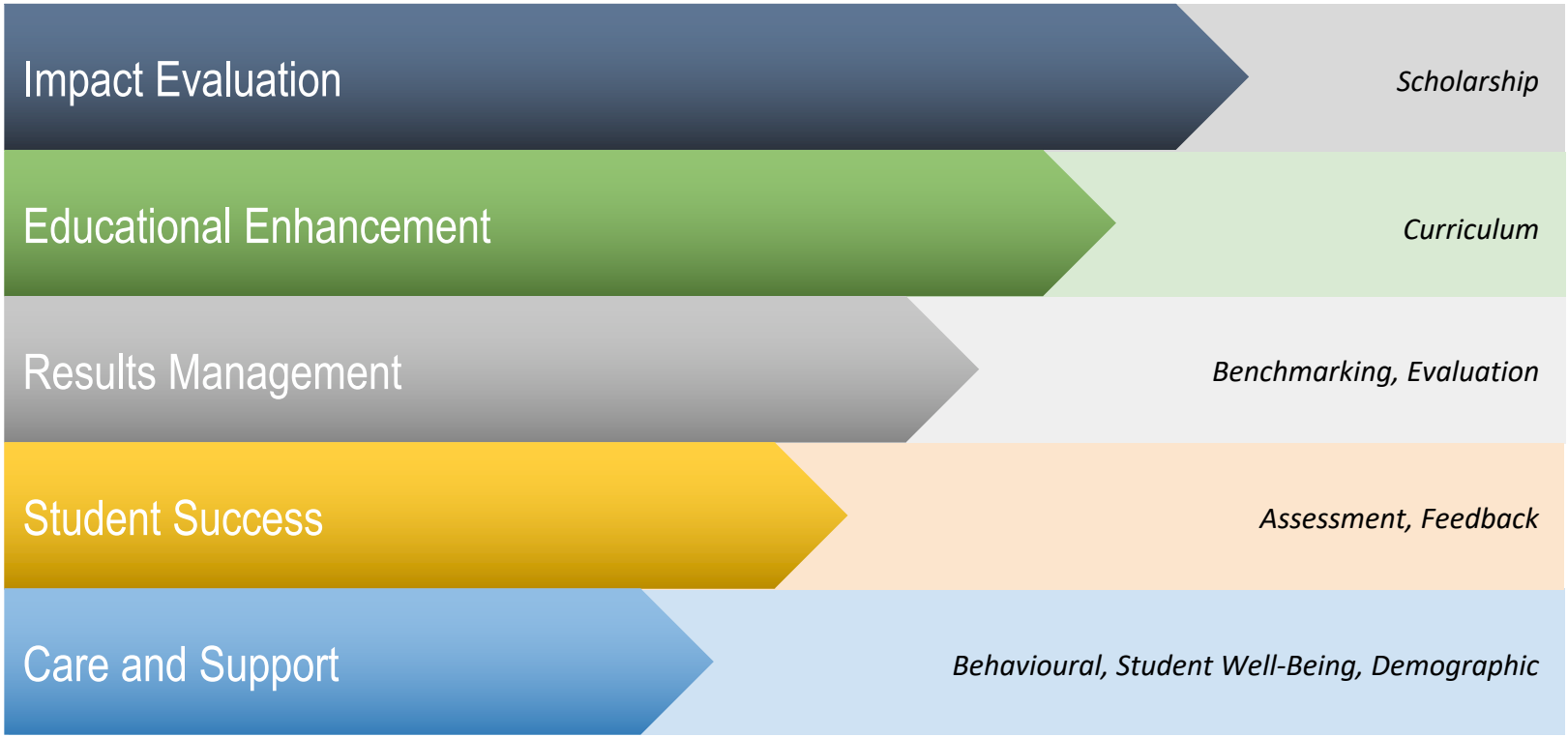
- **2018** Faculty Unit Enhancement dashboard launched
- **2019** Learning Analytics Research Fellow recruited, LMS data set mapped
- **2020** Retention dashboard developed, manual updates support all retention programs
- **2021** Retention dashboard automated, OnTask pilot commenced

"Monash University has comprehensive Learning Analytics supporting our students. Our next challenge is providing this data consistently to our educators to support their learning and teaching delivery"

Draft Education Plan:

- Ensuring learning is active, dynamic, and well-designed
- Enabling students to understand why and how they learn
- Supporting and challenging students to excel in complex environments
- Investing in educators' success

Data tiers


Impact Evaluation
Scholarship
Educational Enhancement
Curriculum
Results Management
Benchmarking, Evaluation
Student Success
Assessment, Feedback
Care and Support
Behavioural, Student Well-Being, Demographic

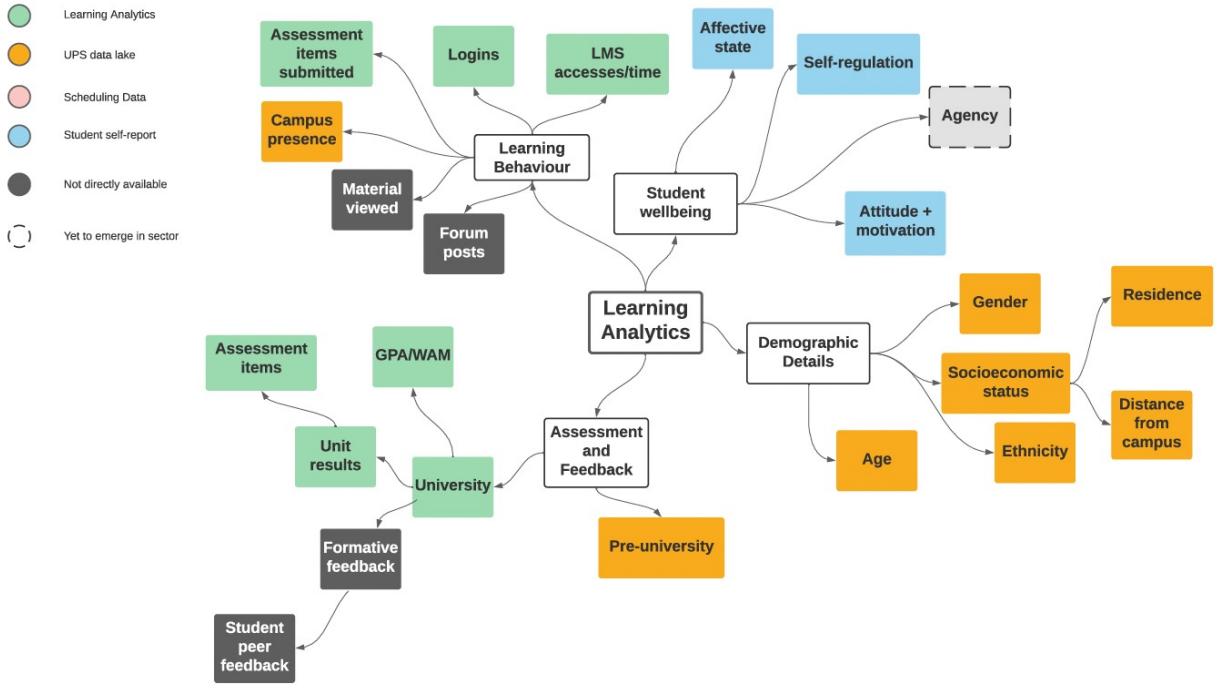
Key Principles

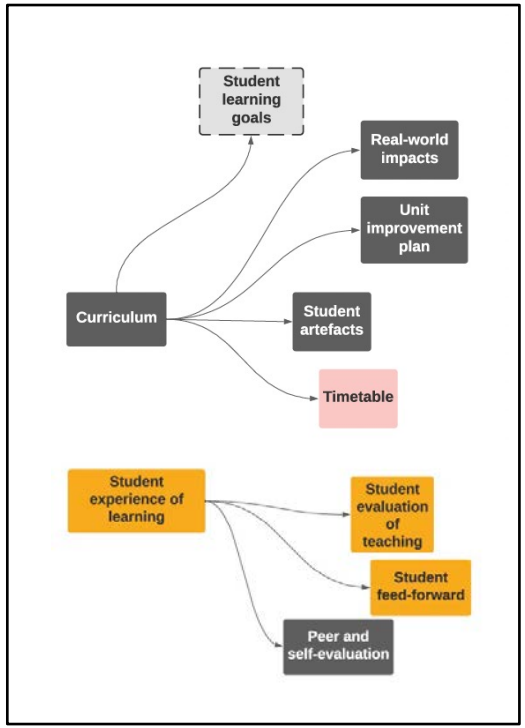
Critical Requirements for Sector-leading adoption

- Service orientation - meeting student and stakeholder needs
- LA able to drive change in LMS + educational platforms
- Tight linkages to educational strategy
- Focus on cultural and skills uplift

Tsai, Yi-Shan, Kovanović, Vitomir, & Gašević, Dragan. (2021). Connecting the dots: An exploratory study on learning analytics adoption factors, experience, and priorities. The Internet and Higher Education, 50, 100794. https://doi.org/10.1016/j.iheduc.2021.100794.

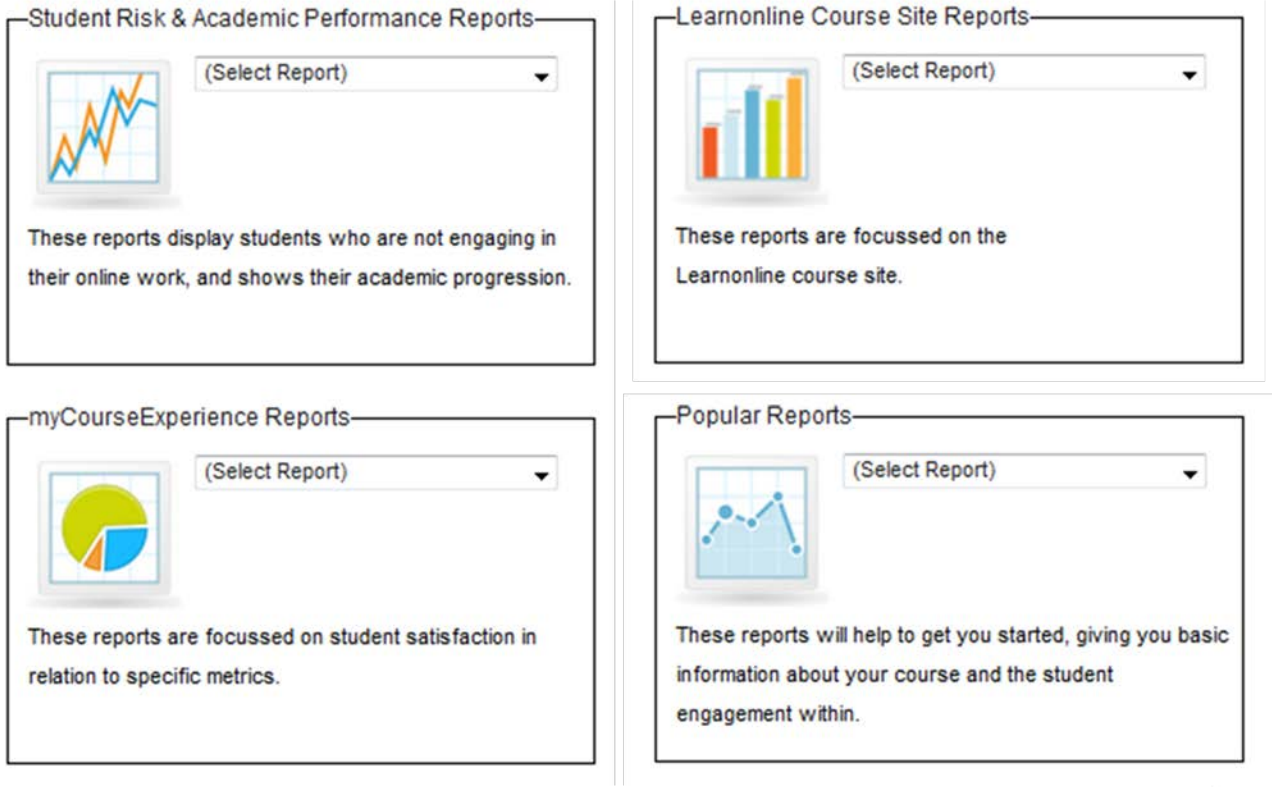
Leading-edge analytics: how do we compare?





Adapted from Alyahyan, Eyman, & Düştegör, Dilek. (2020). Predicting academic success in higher education: literature review and best practices. https://doi.org/10.1186/s41239-020-0177-7.

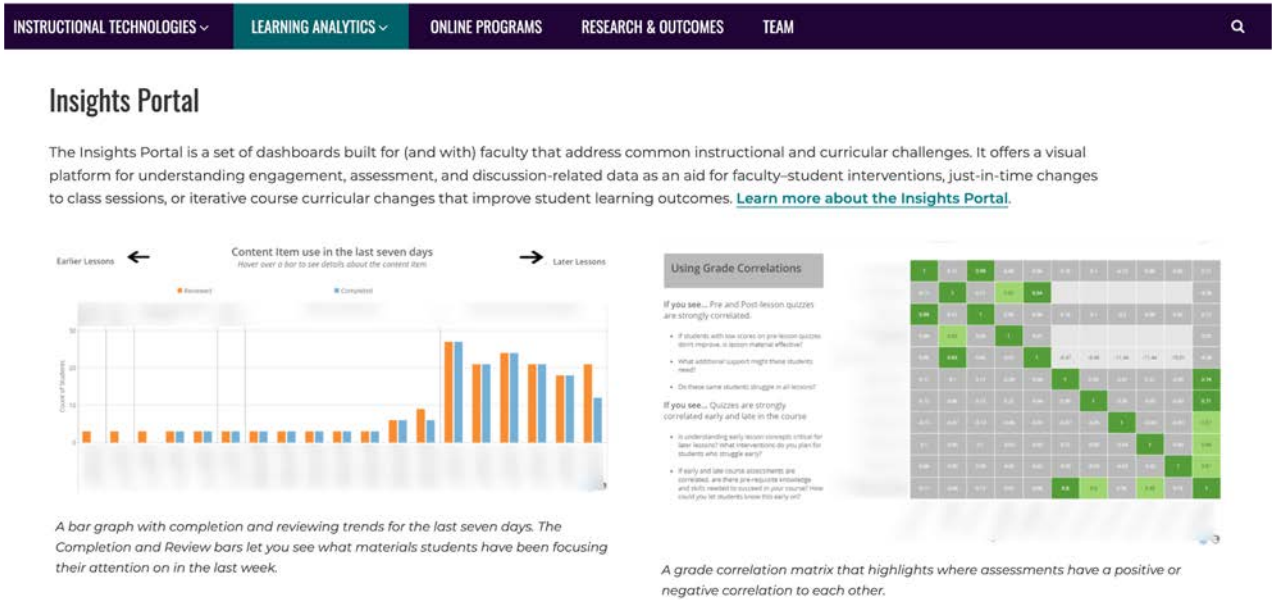
Reporting Provision: A typical HE provider



Key insights:

- Reliance on out of the box reports
- Task-oriented, directive approach
- Limited opportunities for academic input
- Strategic links unclear

A sector-leading adoption (from NYU)



Key insights:

- Effective web presence
- Clear strategic focus on student learning outcomes
- Cultural and skills uplift
- Drive for consistency in data structure
- Research-informed

Retention team outreach approach

Supporting Jobs Ready Graduate Response

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Supporting our students

We're working toward two goals:

Tracking student pass rates and eligibility

Supporting at-risk students

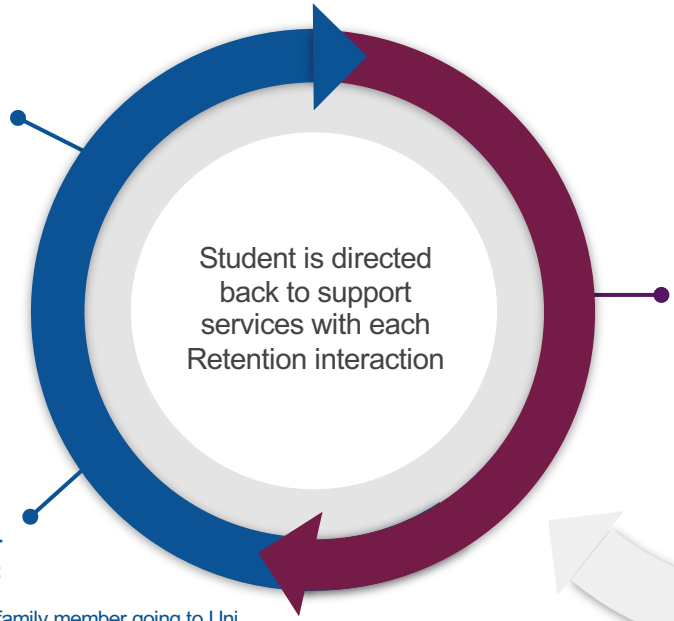
Retention: first contact | Support services | Retention: follow up

Non-linear outreach loop

Retention

First and second wave

- 1:1 phone contact
- Prepared to direct to specific support services



Supplementary indicators for Retention call script support:

- No Monash Connect contact
- Enrolment questionnaire - first family member going to Uni
- Registered with DSS
- Recipient of Access scholarships
- CUP non-completion
- High-priority answers in My Engagement and Support

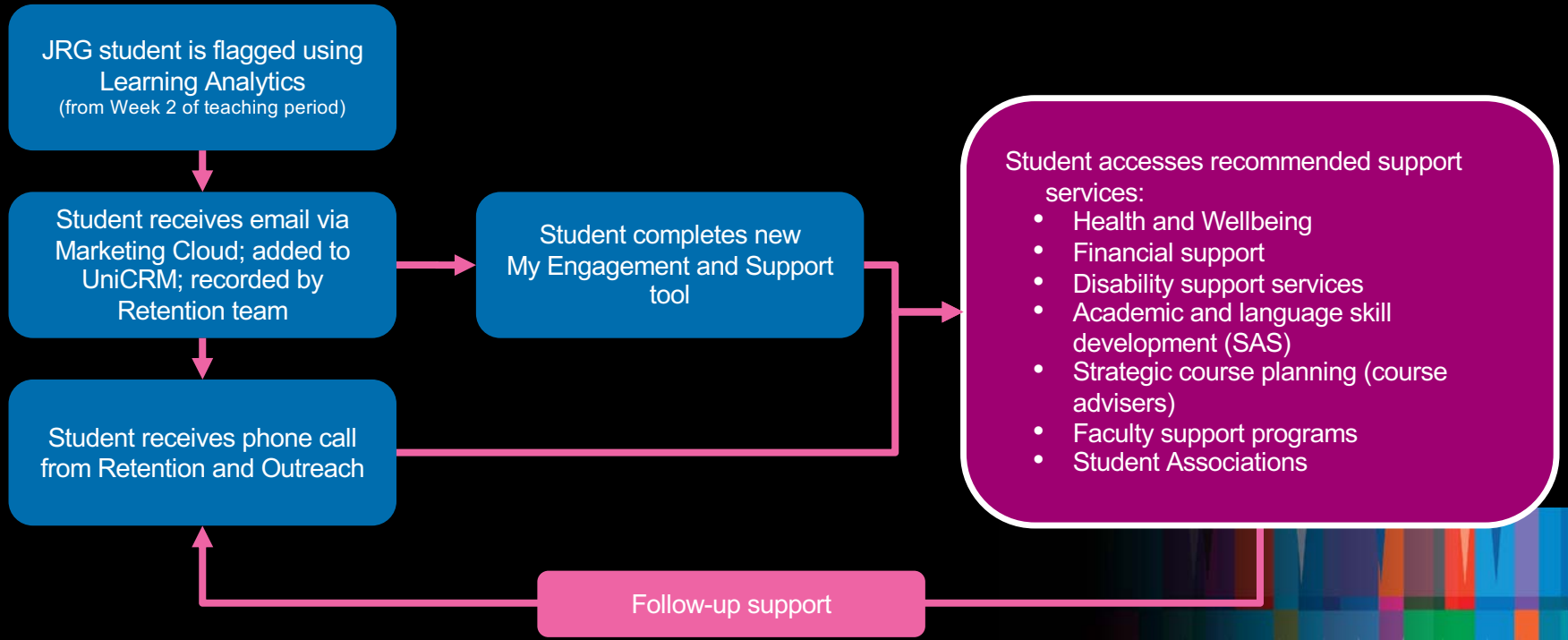
Support services

- Health & wellbeing
- Financial support
- Disability support services
- Academic skill development (Student Academic Success)
- Strategic course planning (course advisors)

Supporting students to track their own progress

Learning Analytics supporting Jobs Ready Graduate (JRG) program

Advising students of their status and their options



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Connecting our learning community to the analytics they need

Educator Requirements of Learning Analytics

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Timely

Data updated daily with key insights particularly over the previous 24 hours and 7 days

Readily Available

Access via the Learning Management System ensuring immediate access at the point of planning, delivering and assessing learning

Strategic advice

On demand support on how to review and apply learning analytics, recommended outreach, and advice on student support provided already by the University.

Agreed value

Engagement and success data valued by the educator as identifying student progression early in the teaching period

Evidence of Impact

Demonstrating improved academic outcomes through the application of learning analytics

Actionable

Enabling immediate outreach to students in need combined with strategic analysis for continuous improvement in teaching and learning

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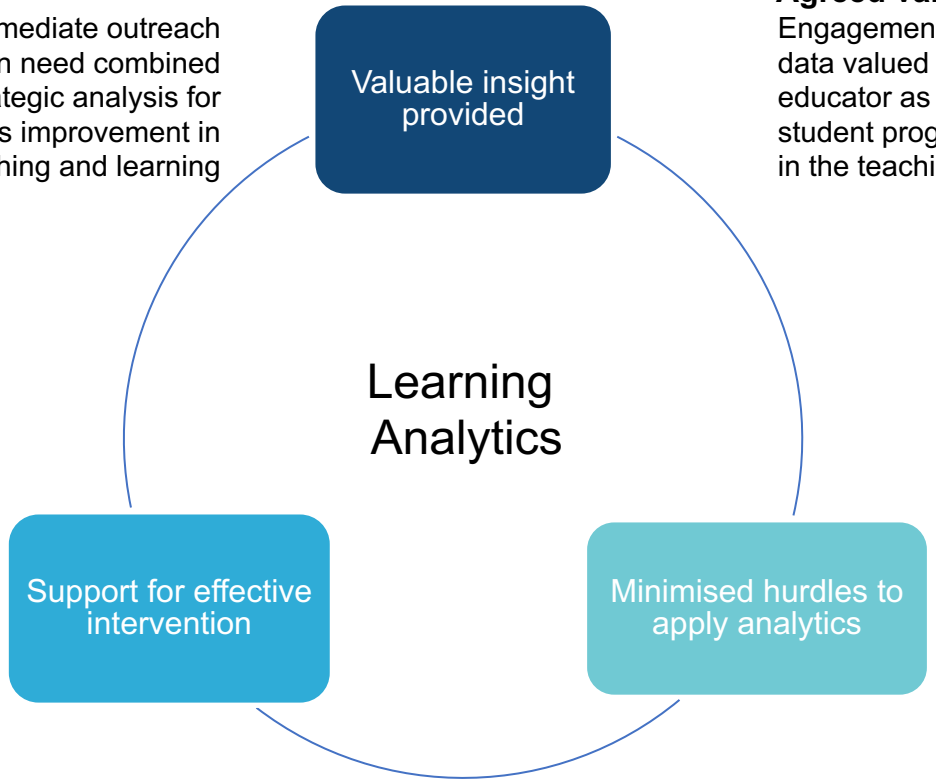

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University and Academic Personalised Outreach

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First Half of Teaching Period

Major Data Source: Unit Engagement

Student engagement is the primary indicator of student academic success in the first half of the teaching period (prior to completion and feedback on major assessment tasks)

Student engagement compares an individual student with their cohort.

Focus on:

- Students engaging well with their learning and with their peers
- Students who are in the bottom quartile (by hours of engagement) of their cohort.

Pre-census intervention allows much more flexibility for response for a poorly performing student

Second Half of Teaching Period

Major Data Source: Assessment Outcomes

Student academic success is the primary indicator of student success in the second half of the teaching period.

Significant variation in engagement noted among the cohort in the second half of teaching period. Engagement is a poor discriminator of academic success.

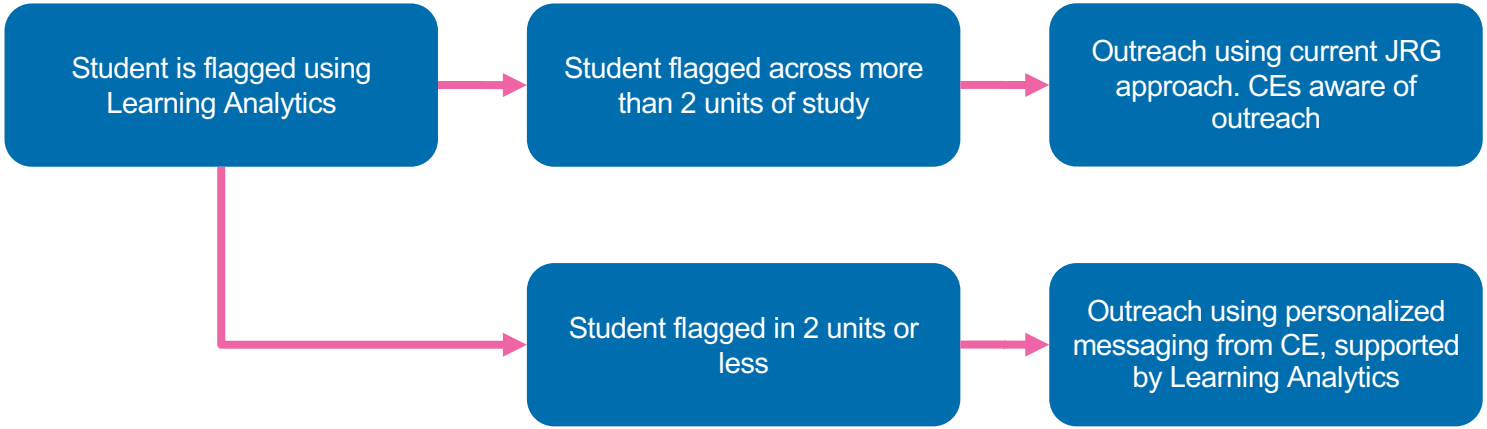
Focus on:

- Students performing well in their assessment,
- Students not submitting assessment,
- Students submitting assessment late,
- Students performing poorly relative to their cohort

Relies upon:

- Timely uploading of student grades

University and Academic Personalised Outreach



- Learning Analytics built upon relationship between academic and student can be much more powerful than institution level outreach.
- Chief Examiners bring detailed unit-specific information to student outreach
- Students flagged across multiple units benefit instead from a single message, rather than multiple outreach

Educator access of Learning Analytics data

- Learning Analytics embedded in our Learning Management System
- Purposeful data aligned with advice and support for immediate impactful implementation
- One button click to email students identified by educator for outreach
- Pre-drafted emails to be personalized by educator

Building Insight Across Monash University

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Unit Level

Student Engagement data
Student academic success data

Discipline Level

Student success by course and pathway
Comparative engagement across units of study
Connecting assessment outcomes with subsequent academic success

University Level

Identifying successful learning approaches
Comparing students across disciplines
Connecting application of LA across disciplines

Next steps: 2022 and 2023

Phase 1

Pilot of learning analytics across all first year units across all disciplines

- Enabling personalised outreach for our very largest units

Phase 2

Enabling Personalised Analytics

- Chief Examiners to select 'key' resources or learning tasks to monitor in their unit.
- Key resources and learning tasks highlight activities essential for student success enhancing interpretation of student engagement

Additional Insights on Engagement

- Correlating student learning pathway with academic success
- Evaluating relative benefit of each learning resource with respect to student academic outcomes

Extending Monash Student App

- Add 'how am I tracking?' feature to Monash Student App comparing student progress with their intended progress
- Reporting individual student engagement and academic progress with similar students
- Highlighting key resources and learning tasks as identified by CEs

Evaluating outreach Impact

- Monitoring progress of students who have received outreach from CEs and from the University