Gregynog Colloquium 2016

Blackboard Analytics

15th June, 2016

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Alternative Title

How can you make Learning Analytics happen within your institution?

- This is more workshop than presentation
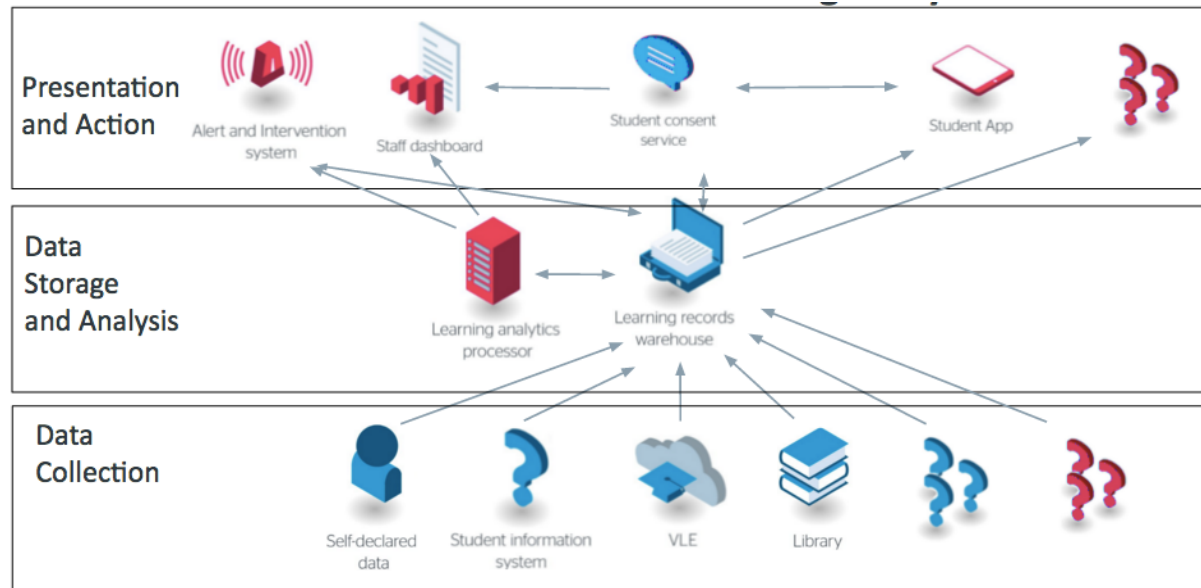- This is not a technical demo

Aims

1. What is Learning Analytics?

2. What are the common use cases?

3. How might you enable these use cases?

4. How might you improve your institutional readiness for Learning Analytics?
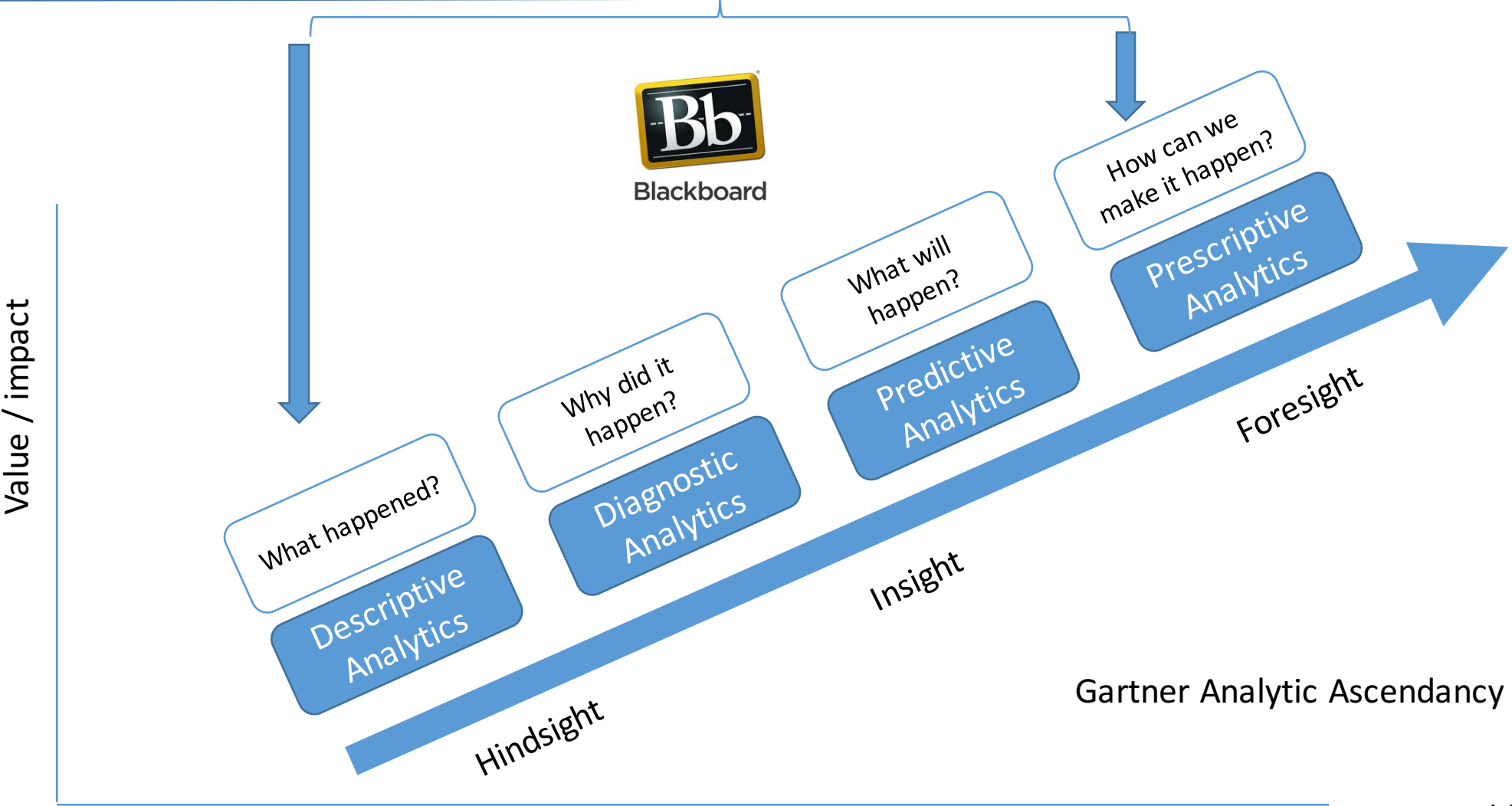
What do I mean by Learning Analytics?

Davenport et al., (2010)

Learning analytics is the application of analytic techniques to **analyse educational data**, including data about learner and teacher activities, to identify patterns of behavior and **provide actionable information** to improve learning and learning related activities

Different types of Learning Analytics

Value / impact

Descriptive Analytics — What happened?

Diagnostic Analytics — Why did it happen?

Predictive Analytics — What will happen?

Prescriptive Analytics — How can we make it happen?

Hindsight

Insight

Foresight

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Gartner Analytic Ascendancy Model (2012)

Difficulty

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Does it work? Where is the evidence base?

... early days, small scale implementation (programme level) ...

While learning analytics and adaptive learning have the potential to foster more personalized learning for students while providing colleges and universities with key insights about the efficacy of their instruction, development around the world is still uneven. Australia, for example, is still in the nascent stages of adopting learning analytics. **A recent study from the Office of Teaching and Learning examining the current state of learning analytics in Australian higher education found that many initiatives were modest in scale and focused narrowly on using tools to boost retention**.

NMC Horizon Report (Educause) 2016 Higher Education Report, pg 39

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1. Improving the quality of teaching
2. Boosting retention
3. Enabling students to tae control of their learning

At the University of New England for example attrition was cut from 18% to 12% during early trials of their Automated Wellness Engine
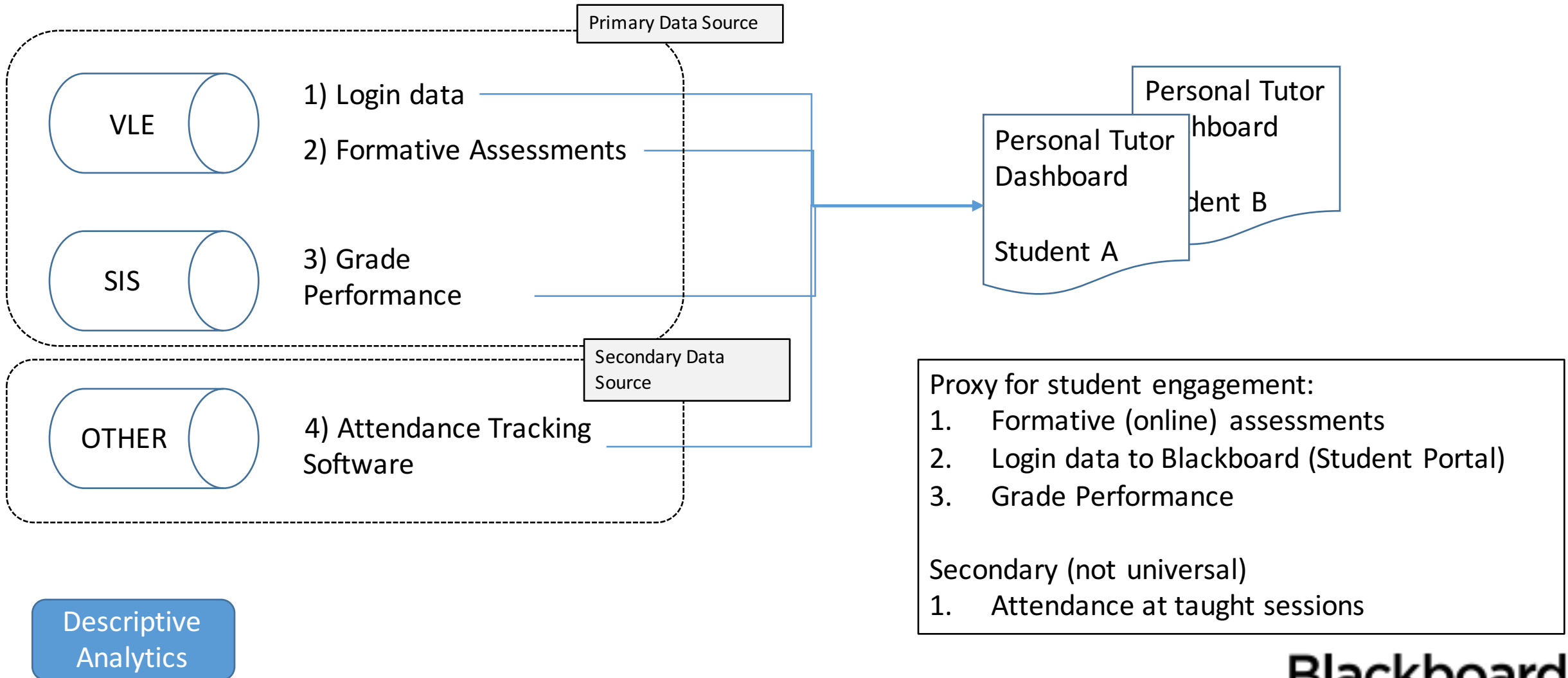
Learning Analytics in Higher Education
A review of UK and international practice
Full report

https://www.jisc.ac.uk/reports/learning-analytics-in-higher-education

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Use Case 1: Supporting Students at risk through Personal Tutor System

Primary Data Source

VLE

1) Login data

2) Formative Assessments

SIS

3) Grade Performance

Secondary Data Source

OTHER

4) Attendance Tracking Software

Personal Tutor Dashboard

Student A

Personal Tutor Dashboard

Student B

Proxy for student engagement:
1. Formative (online) assessments
2. Login data to Blackboard (Student Portal)
3. Grade Performance

Secondary (not universal)
1. Attendance at taught sessions

Descriptive Analytics

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Use Case 2: Facilitating students to become more effective self regulated learners ... did they know?

Learning Gain = f (

- Contribution to discussion in scheduled teaching sessions

- Timeliness of assignment submission

- Involvement in extra-curricular activities (societies & clubs)

- Engagement with academic skills and library services

- Lecture engagement characteristics

)

Predictive Analytics

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How might you enable the following use cases?

A **change agent** is a person from inside or outside the organization who helps an organization transform itself by focusing on such matters as organizational effectiveness, improvement, and development. A change agent usually focuses his efforts on the effect of changing technologies, structures, and tasks on interpersonal and group relationships in the organization. The focus is on the people in the organization and their interactions.

Characteristics of a Change Agent

- Clear Vision

- Patient yet persistent

- Asks tough questions

- Knowledgeable and leads by example

- Strong relationships built on trust

Group Work !!

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Elevator Pitch	Improving retention through targeting support for students at risk through more effective use of existing personal tutor system
What data, indicators or proxies would you need to collect / measure? Is the data available?	
Who needs to access the report (data)?	
How often would they need to access it?	
What types of interventions might this trigger?	
What are the likely (hoped) outcomes?	
How will you ensure the data / reporting has been acted upon?	
What might be the main hurdle (obstacle)?	
Level of Risk	

1

Improving retention through targeting support for students at risk through more effective use of existing personal tutor system

Use cases developed on Instiutional Readiness Assessment engagements. You are their critical friend(s) ☺
- 5 minutes
- In three's

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Elevator Pitch	What lesson is best to timetable on Monday morning? How can we more pro-actively encourage students ... and punc...
What data, indicators or proxies would you need to collect / measure? Is the data available?	
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How often would they need to access it?	
What types of interventions might this trigger?	
What are the likely outcomes?	
How will you ensure the data / reporting has been acted upon?	
What might be the main hurdle (obstacle)?	
Level of Risk	

What lesson is best to timetable on Monday morning? How can we more pro-actively encourage students to take ownership of their punctuality? [Analyze the factors which influence attendance and punctuality]

Use cases developed on Instiutional Readiness Assessment engagements. You are their critical friend(s) ☺
- 5 minutes
- In three's

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3

Elevator Pitch	Provide information to students through a student dashboard about their performance compared to their p... with resp... people (s...
What data, indicators or proxies would you need to collect / measure? Is the data available?	
Who needs to access the report (data)?	
How often would they need to access it?	
What types of interventions might this trigger?	
What are the likely outcomes?	
How will you ensure the data / reporting has been acted upon?	
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Level of Risk	

Provide information to students through a student dashboard about their performance compared to their peers on their level of engagement, to empower them to make more effective decisions with respect to their learning journey, and encourage them to connect with the appropriate people (support teams) when applicable

Use cases developed on Instiutional Readiness Assessment engagements. You are their critical friend(s) ☺
- 5 minutes
- In three's

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Elevator Pitch	Can we identify good practice across VLE modules, and good practitioners who are using certain tools / learning tasks / quiz, wiki, discussion board, journal)? Can we disseminate this to wider academic
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Can we identify good practice across VLE modules, and good practitioners who are using certain tools / learning tasks (quiz, wiki, discussion board, journal)? Can we disseminate this to wider academic body to inform their practice?

Use cases developed on Instiutional Readiness Assessment engagements. You are their critical friend(s) ☺
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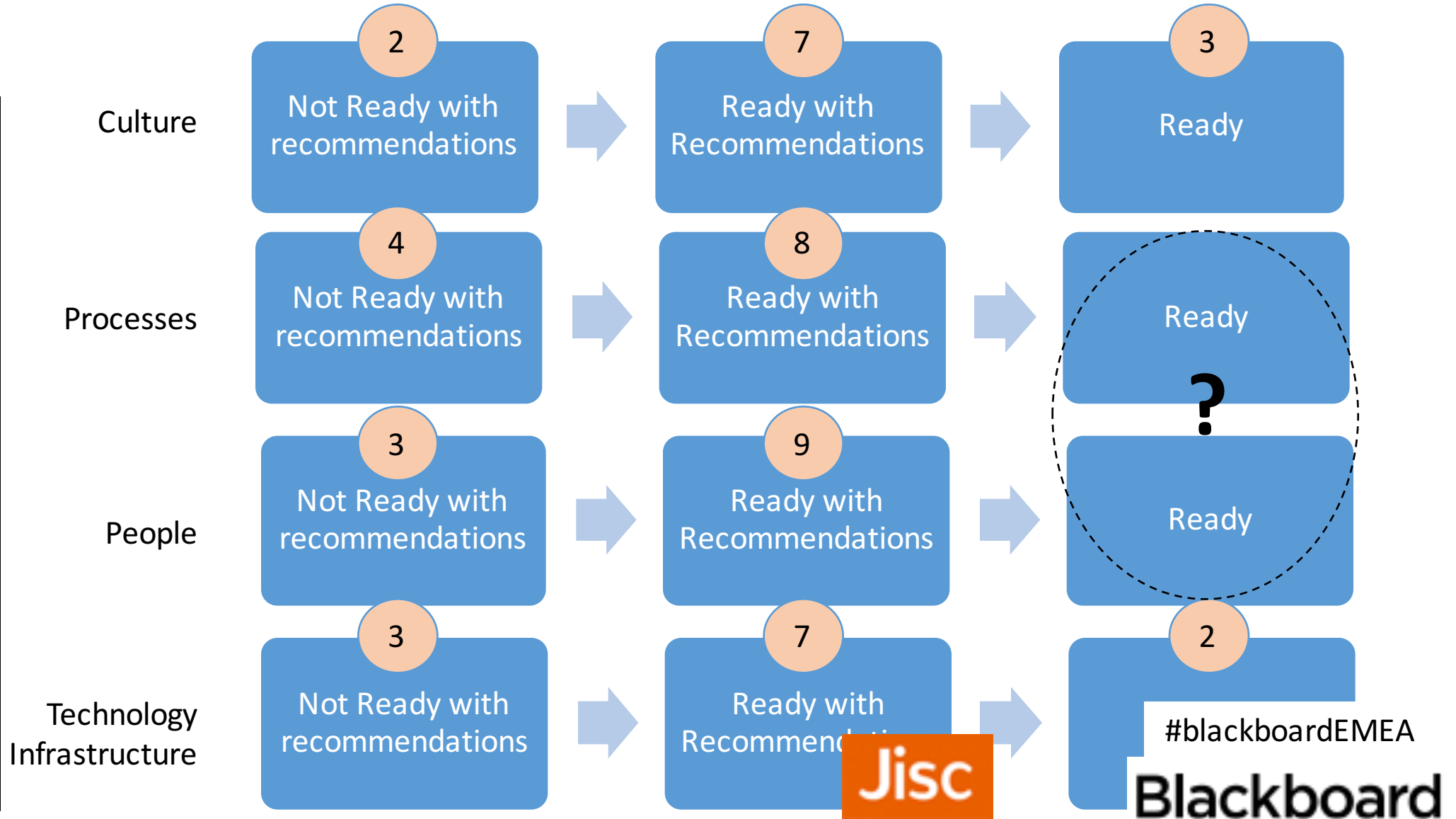# How might you improve your institutional readiness for Learning Analytics?

Learning Analytics is not a technical challenge, it is a change management challenge. It is about culture, processes and skill sets

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Pillars of Institutional Wide Readiness (n=12)

Learning analytics is the application of analytic techniques to **analyse educational data**, including data about learner and teacher activities, to identify patterns of behavior and **provide (frequent) actionable information** to improve learning and learning related activities

Culture

2	7	3
Not Ready with recommendations	Ready with Recommendations	Ready

Processes

4	8	
Not Ready with recommendations	Ready with Recommendations	Ready

People

3	9	
Not Ready with recommendations	Ready with Recommendations	Ready

?

Technology Infrastructure

3	7	2
Not Ready with recommendations	Ready with Recommendations	

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Thank you, questions?

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