SARP
Student Analytics Reflective Planner

An outline idea - expressed as a set of mockup screens - for the LAK17 Hackathon, taking Tribal Student Insight as a jumping-off point.

Adam Cooper, Tribal Group, March 2017

Jumping Off Points

Inspiration drawn from challenges 1 and 7 in the slide deck at

- Making predictive analytics safe for students
- Data literacy playground (more could be woven in from here)

Aims = to give students…

- Visibility of the attributes used in the analytics

- Indication of the influence of these factors on the chance of outcomes according to historical data in their school

- Scaffolding for self-efficacy
  - consider why some features correlate with the outcome
  - assess their situation
  - formulate plan to deal with difficulties, address weaknesses, build on strengths, etc

- Contextualised links to hints on strategies, practical action, sources of help

- … but to NOT give them a prediction of their level of risk

- and to try to navigate around "gaming", chasing proxies, various other potential negative aspects

Student Analytics Reflective Planner

Risk Factors in the School of Economics

Risk of Non-progression ❓

The bar shows the historical chance that students in the School of Economics fail to get a clean pass at the end of the year and end up repeating the year, retaking courses, etc
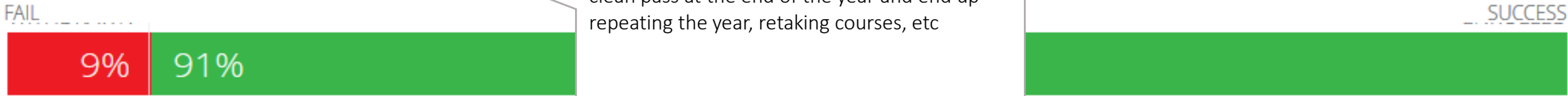
FAIL | SUCCESS

| 9% | 91% |

Demographic Features
You can't change these but you can ask "what makes a typical …?", "which of those aspects contributes to success?", "what am I like?"

INFLUENCE RANGE

-100   0   100

v
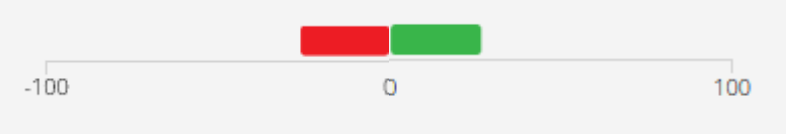
Intrinsic Course Factors
You can't change these either, but you can ask "what makes it harder to succeed?" and "how do I deal with the challenges?"

INFLUENCE RANGE

-100   0   100

v

Attendance Levels
Is your behaviour risky?

v

Student Analytics Reflective Planner

Risk Factors in the School of Economics

Risk of Non-progression

FAIL   SUCCESS

| 9% | 91% |

Demographic Features
You can't change these but you can ask "what makes a typical …?", "which of those aspects contributes to success?", "what am I like?"
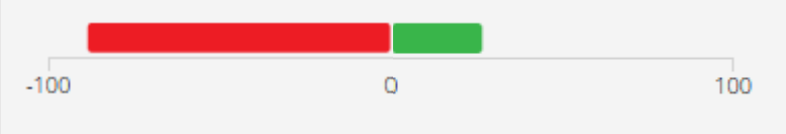
Country
INFLUENCE (United States -100 | Germany +100)

Income
INFLUENCE (>= 1000 < 3000 -29 | < 1000 +26)

Gender
INFLUENCE (F -6 | M +3)

Parents Education
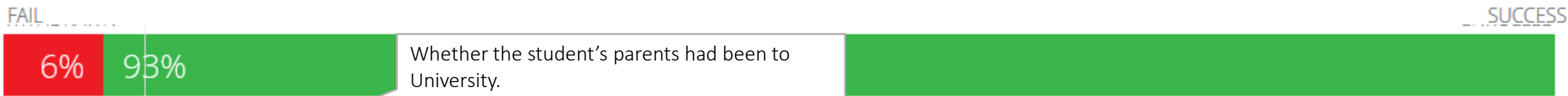INFLUENCE (Unknown -16 | Yes +50)

Sex
INFLUENCE (M -10 | F +31)

Student Analytics Reflective Planner

Risk of Non-progression

FAIL ⋯⋯⋯⋯ SUCCESS

| 6% | 93% |

Whether the student's parents had been to University.

Parents Education ❓

QUANTITY	CATEGORY	INFLUENCE	SELECT
16%	● Yes (128 students)	-100 0 100	⦿
49%	● No (182 students)	-100 0 100	○
35%	● Unknown (59 students)	-100 0 100	○

You are in a lower risk group.

What factors make this a lower risk group? ❓

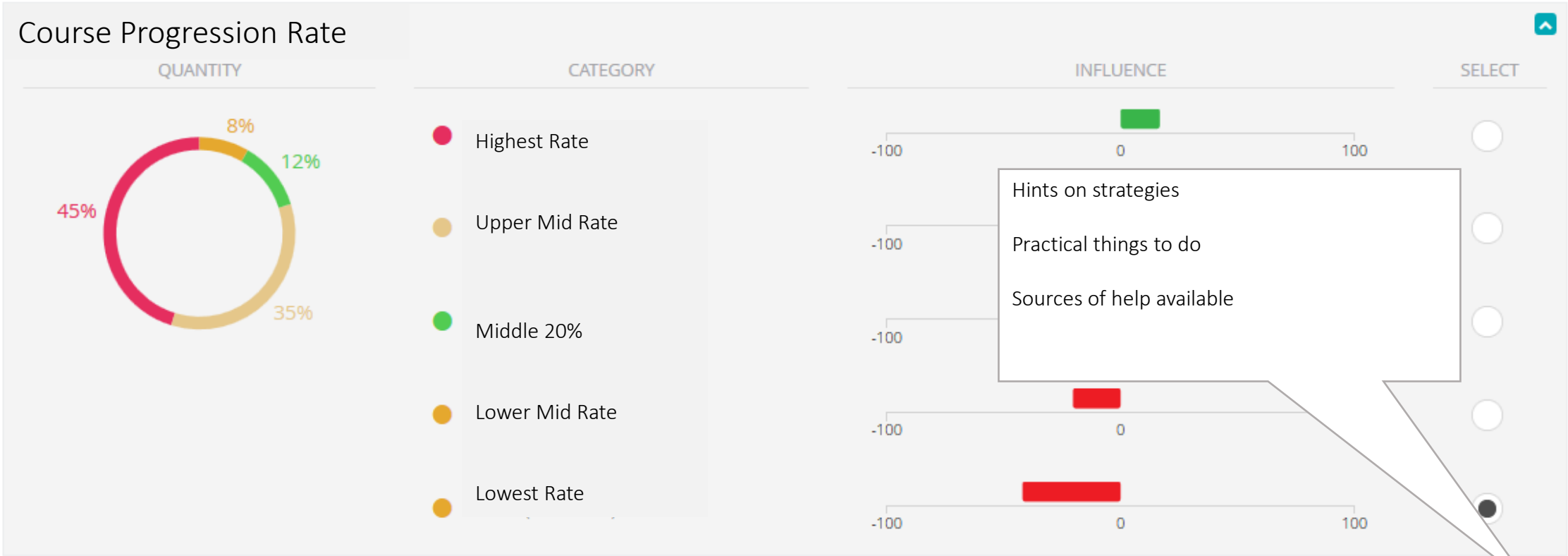How well do you match the typical?

Building on strengths I will... ❓

Share this with my personal tutor: ☐ X

Student Analytics Reflective Planner

Risk of Non-progression

FAIL   SUCCESS

36%	61%

Course Progression Rate

QUANTITY	CATEGORY	INFLUENCE	SELECT
8%	⬤ Highest Rate		◯
12%	⬤ Upper Mid Rate		◯
45%	⬤ Middle 20%		◯
35%	⬤ Lower Mid Rate		◯
	⬤ Lowest Rate		⬤

[scroll down]

Student Analytics Reflective Planner

Course Progression Rate

QUANTITY	CATEGORY	INFLUENCE	SELECT

QUANTITY
- 8%
- 12%
- 45%
- 35%

CATEGORY
- 🔴 Highest Rate
- 🟤 Upper Mid Rate
- 🟢 Middle 20%
- 🟠 Lower Mid Rate
- 🟠 Lowest Rate

INFLUENCE
-100   0   100

Hints on strategies

Practical things to do

Sources of help available

-100

-100   0

-100   0   100

You are in a higher risk group. This course has among the lowest progression rates in the institution.

What factors make this course hard to pass? ❓	How well equipped are you to overcome..?	Action plan to overcome difficulties ❓

Student Analytics Reflective Planner

Attendance Rate in Last 4 Weeks

QUANTITY

8%
12%
45%
35%

CATEGORY

- 90% and over
- 80%-90%
- 70%-80%
- 60%-70%
- Less than 60%

INFLUENCE

-100   0   100

-100   0   100

-100   0   100

-100   0   100

-100   0   100

SELECT

You are in a higher risk group.

What are the benefits of attendance at class? ❓	What is it which makes your attendance problem?	Action plan ... ❓

Good attendance is important for success:

strongly agree — ✗ agree — neutral — disagree — strongly disagree

Good attendance is difficult for me:

strongly agree — ✗ agree — neutral — disagree — strongly disagree
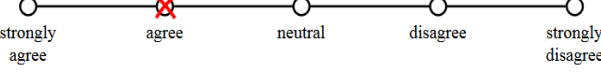
Delivering on the plan will be hard:

strongly agree — ✗ agree — neutral — disagree — strongly disagree
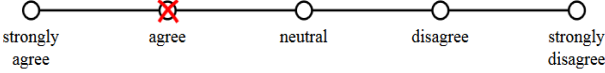
Some Further Ideas

- Link to ELLI (effective lifelong learning inventory) and CLARA (https://utscic.edu.au/tools/clara/)
  - Could just sit as a deepening tool without being connected to analytics
  - Could over time collect enough data to begin to tell compelling stories about the development of self-efficacy and outcomes.

Created by Adam Cooper, Tribal, on March 14th 2017 at the 7th International Learning Analytics and Knowledge Conference in Vancouver, Canada.