Supporting student's learning journey through the transition between levels in mathematics and statistics

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What?

- Resources that allow students to self-identify and address gaps in their mathematical and statistical skills.
- A qualification-based set of bridging materials, focused on *Revising* and *refreshing* students' knowledge of pre-requisite material, delivered to students in the time **between** MST124 & MST224 and between levels 2 and 3.

Why?

- Mathematics and Statistics are linear subjects where success at higher levels depends on firm foundations, it is likened to a carpenter who is only capable of making a beautiful piece of furniture once they understand how a hammer and nail work.
- Regular practice in a supported environment in the gap between modules gives best chance of success at the next level of study.

How?

- Identify the areas where lack of preparation commonly leads to students underperforming in certain modules.
- Build on existing materials and develop new resources to address those topics.
- Tutor support will be provided, delivering online tutorials, moderated forums, and iCMA-style quizzes and activities.
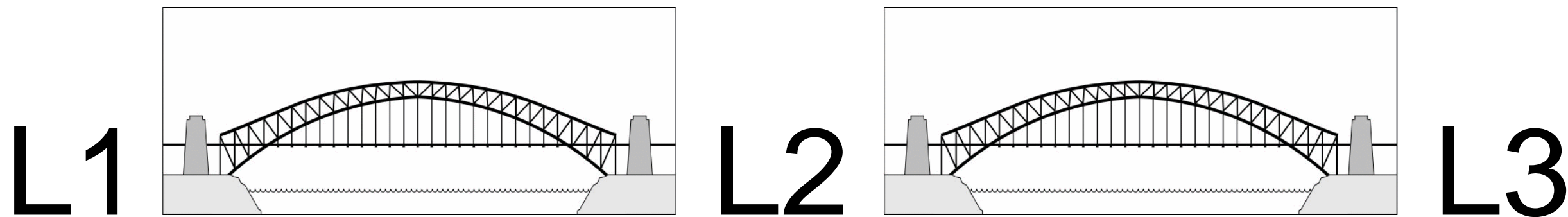
Students?

- Work sits within the University strategy for more students qualifying.
- Many students who complete level 1 do not progress to level 2 or withdraw from level 2 modules, or have difficulties progressing from level 2 to level 3.
- Show the University's commitment to supporting students throughout their learning journey at a qualification level by giving more support between modules and levels.

Evaluation?

- AL feedback via questionnaires.
- Student evaluation of usefulness of material. For example, using telephone interviews both prior to starting their chosen module and when study of the module is completed.
- Analysis of data on retention at fee liability points, TMA submission rates, TMA scores on assessment areas thought to suffer from lack of preparation, pass rates and return to study further modules.

The future?

- Share outcomes within School of Mathematics and Statistics to inform module teams' curriculum planning.
- Further adaptation of materials based on the evaluation.
- Publicise material and encourage more students to make use of it.
- Disseminate evaluation via eSTEeM conferences, scholarship site and external conferences such as HEA.

References

[1] van Ameijde, J, Weller, M, Cross S (2016) Designing for Student Retention: The ICEBURG model and key design tips http://article.iet.open.ac.uk/Q/QE%20report%20series/2016-QE-student-retention.pdf

[2] Matthews J, Croft T, Lawson D, Waller D (2012) Evaluation of mathematics support centres http://www.sigma-network.ac.uk/wp-content/uploads/2012/11/Evaluation-of-MSC-final.pdf