

Imperial College
London

Student Shapers project
9th October, 2019

Evidence for achievement of deeper civil engineering learning

measuring the effects of curriculum changes in
a quantitative way

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1

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1. What is being done?

- Design Education is an essential part of Civil Engineering
- Interested in self-efficacy on design-related skills



2

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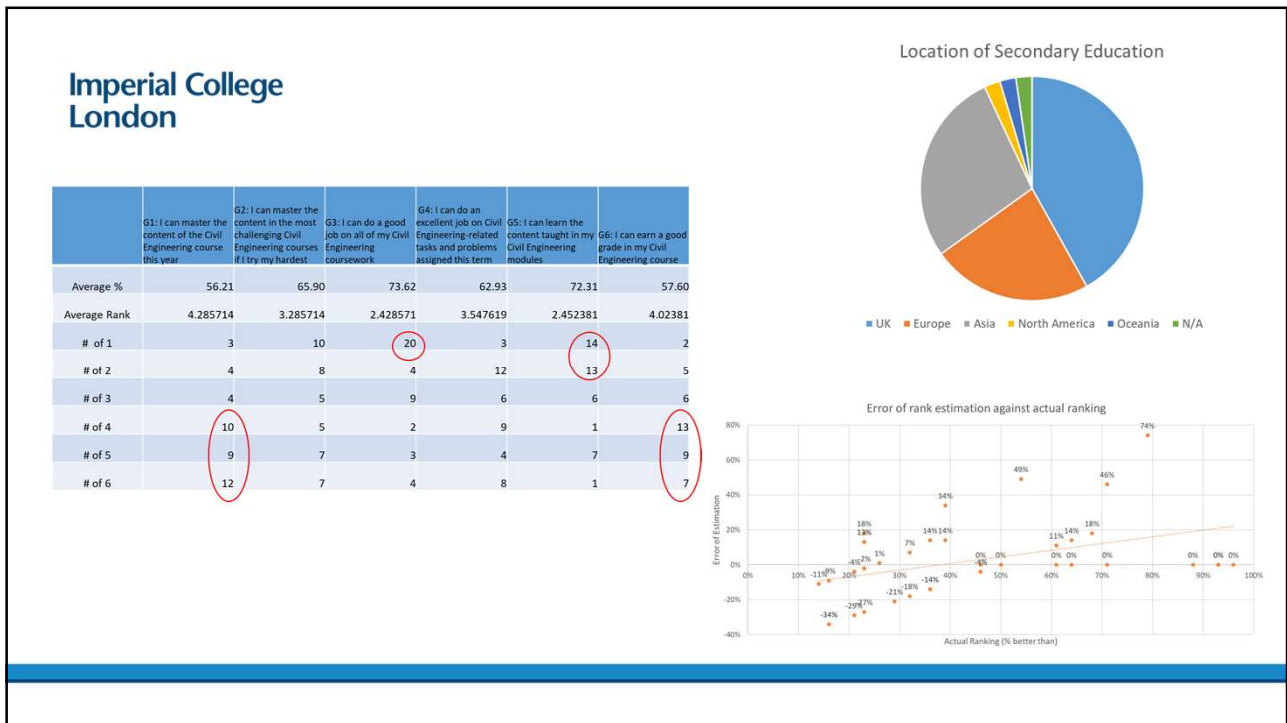
- Design Education is an essential part of Civil Engineering
- Interested in self-efficacy on design-related skills
- Team of 2 students, 4 teachers, 2 CHERS researchers
- Survey among all first-year students 2018-2019, repeat 2019-2020
- Now in analysis stage (quali- and quantitative)
- Interviews / focus-groups to follow
- Comparison with international peers (TU Delft first year students Civ. Eng.)

3

2. What results do we expect?

- Possibly some significant quantitative correlations
- If not: thematic analysis of open-ended questions will definitely provide insight into how and why
- Personally enriching experience for both lecturers and students involved in StudentShapers
- Better understanding / improvement of how students perform in design education

4



5

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3. How will findings be disseminated?

- Publication in Higher Education Research journal
- Educational Conference attendance and presentation
- Knowledge of educational research / evidence-based education

6

4. What are the longer term outcomes and benefits?

- Insight into what drives and develops students' self confidence
- Improve the teaching strategy to help students learn high level cognitive skills, which are necessary in the field of design
- Initiating the analysis of students' self-efficacy within the curriculum

7

5. What is the experience of staff/student partnership?

- Students and staff members' contributions are treated equally and responsibilities are shared
- Student members gain insight into the teaching strategy and curriculum design
- Staff members gain insight into students' perspectives and are able to obtain an initial opinion on new proposals
- **Conclusion: a good personal experience, with useful outcomes to improve teaching**

8