The Complex Trajectories project

Promoting students' successful trajectories in Higher Education Institutions

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Co-funded by the Erasmus+ Programme of the European Union

The Open University

Details

Led by, Fundacio per a la Universitat Oberta de Catalunya

Project Duration:

September 1, 2020 to July 31, 2023 (35 months)

Final Report, 30/09/2023 (35 months)

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Partners

- **Fundacio per a la Universitat Oberta de Catalunya**
- University of Porto (Universidade do Porto)
- Universidade Aberta (Uab)
- Universidad de Valencia
- Universitat Autònoma de Barcelona
- Université de Bourgogne
- Open University

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Motivation

For the project:

- Changes by the Spanish quality agency to improve widening participation prompted a greater focus on the study experience of students.

For the OU:

- We have become increasingly aware of the sheer complexity when it comes to understanding the student experience
- This project applies techniques from other fields to these study data

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Complexity of study paths at the OU

- The OU is open to everyone and has **no entry requirements** for its undergraduate programme
- Students paying for their study with loans from the Student Loans Company do need to declare a qualification aim but the OU does not require this
- Students are able to study the modules they choose and when they choose.
- The OU offers the **Open Degree**, still our largest in terms of numbers graduating: offers potential for students to construct their own programme of study.

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Previous pathways/trajectories work at the OU

- The following three slides illustrate the graph database approach we have been developing in recent years and is ongoing.
- This work provides a powerful route into exploring the student experience
- By centering our data perspective on the student experience we are constantly discovering fresh insights.
- This work has revealed the complexity within our data
- The data approaches in the Complex Trajectories project have not previously been applied to OU data. They offer the opportunity for comparison with other universities and complement our ongoing work.

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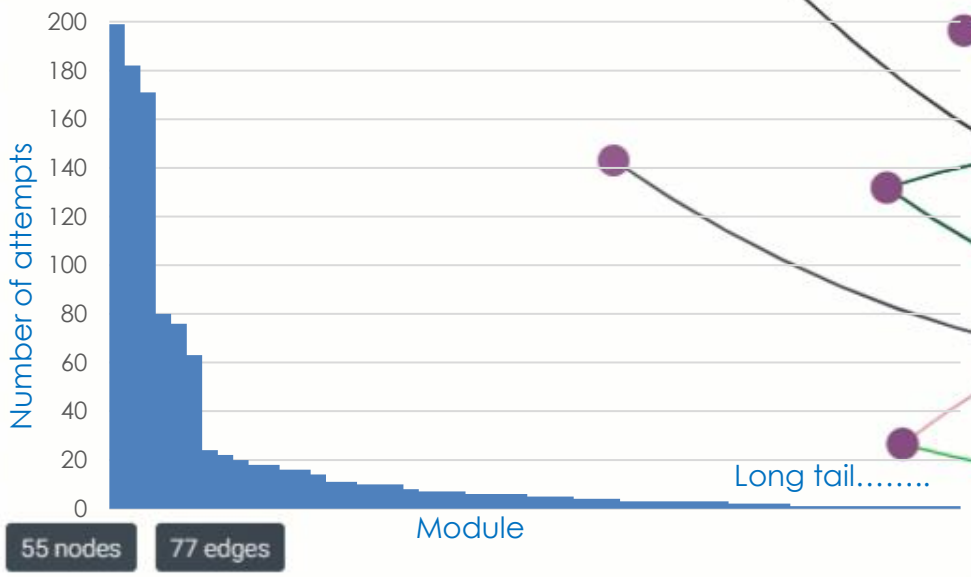
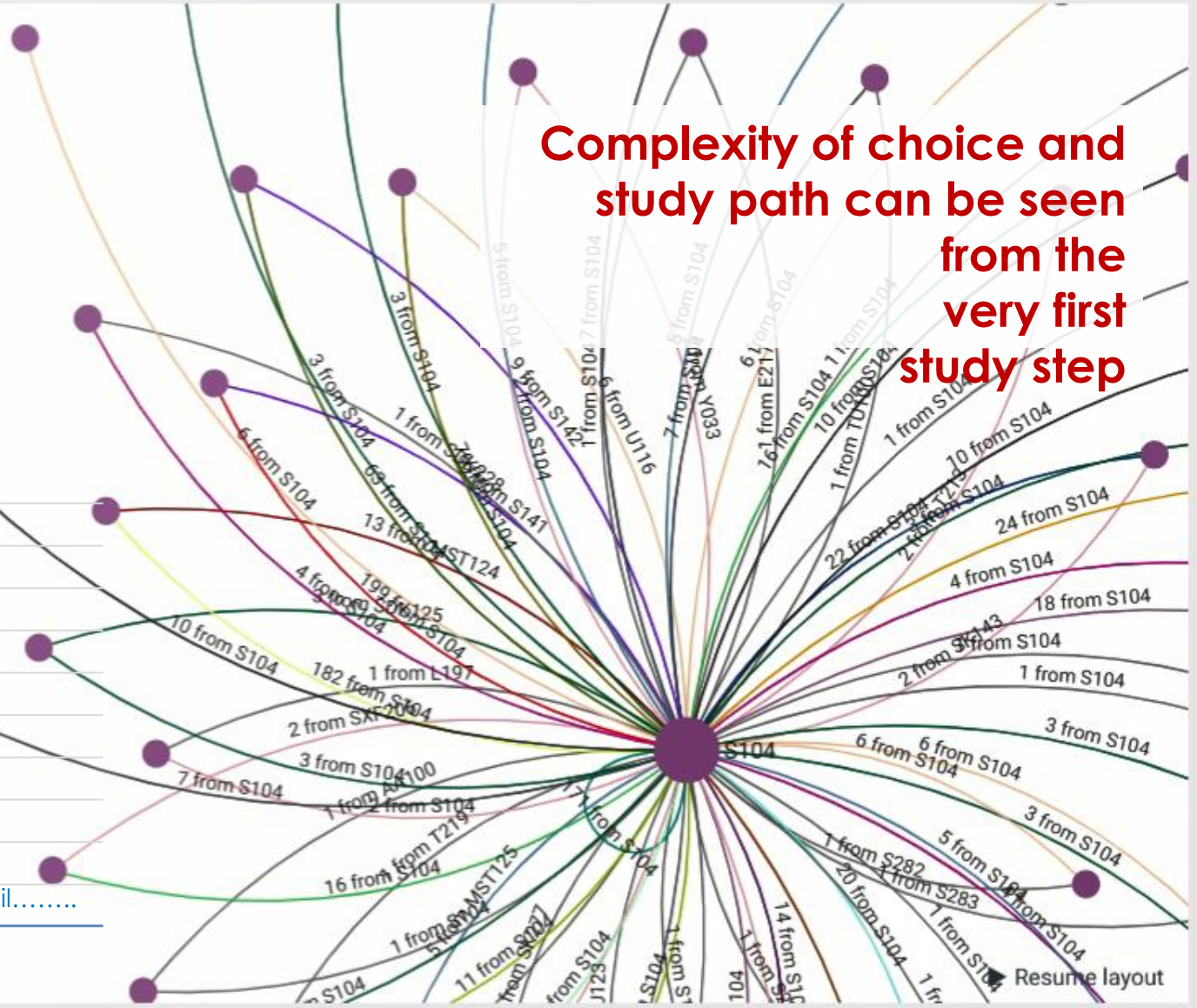
This slide is for **illustration**. The values are **not** definitive

Key introductory Science module

- Attempted by 937 new students
  This shows the 55 next modules attempted:



Complexity of choice and study path can be seen from the very first study step



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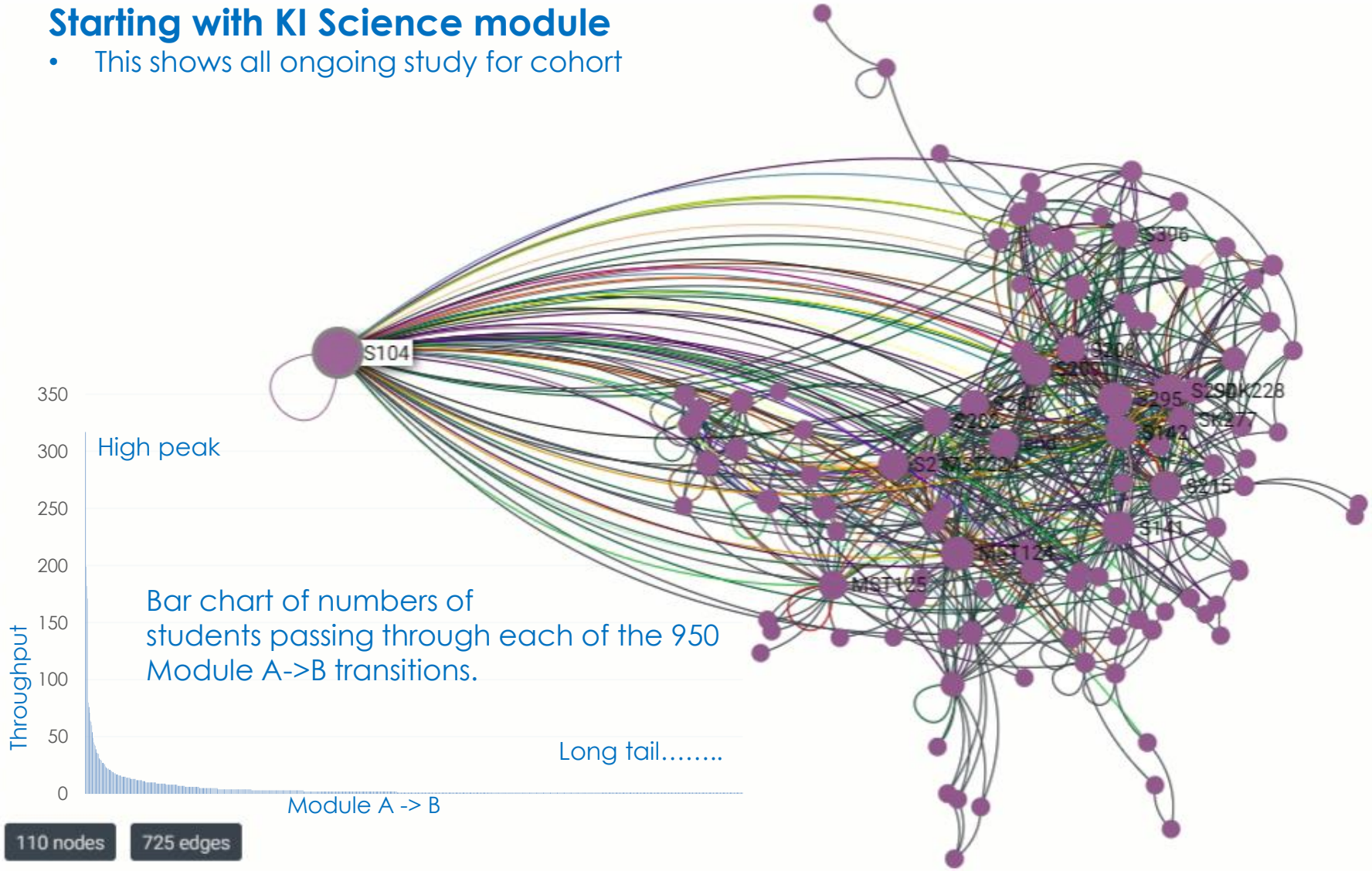
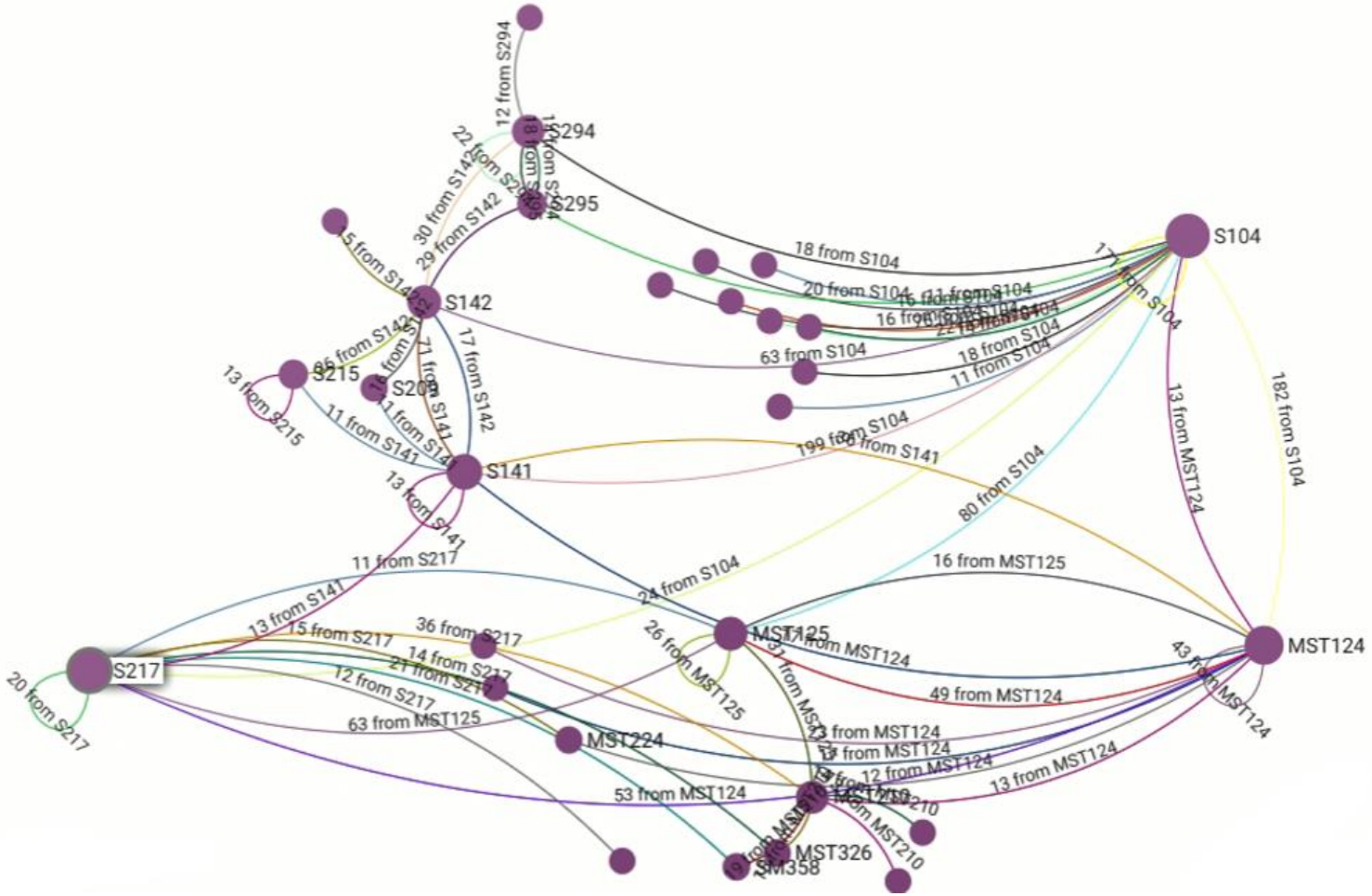
Starting with KI Science module

- This shows all ongoing study for cohort



Making useful visualisations

- Just include transitions between modules taken by at least 10 students.



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Two strands

- The strand looking at the practices in place within institutions for admission and support of students through their journey: including the recognition of previous experience and credit from other institutions, advice and guidance on what to study, and on supporting students when they feel things are not going well.
- The strand we will be focussing on is the data analysis strand. This applies two different methods to analysis our study data: sequence analysis, and group based trajectory modelling (GBTM)

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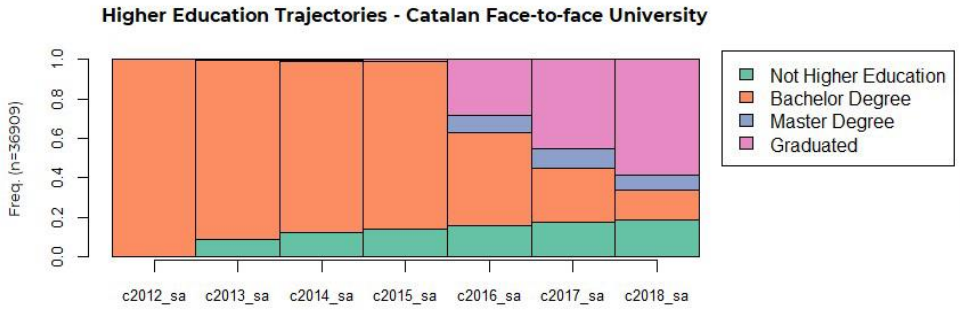
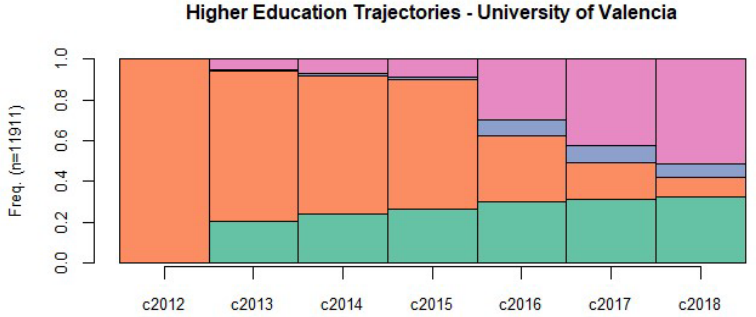
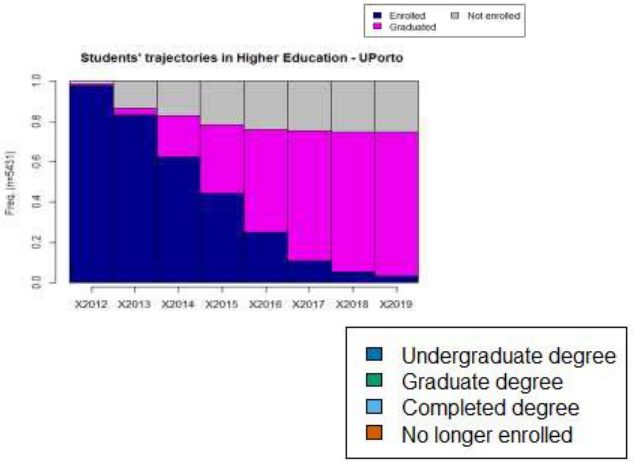
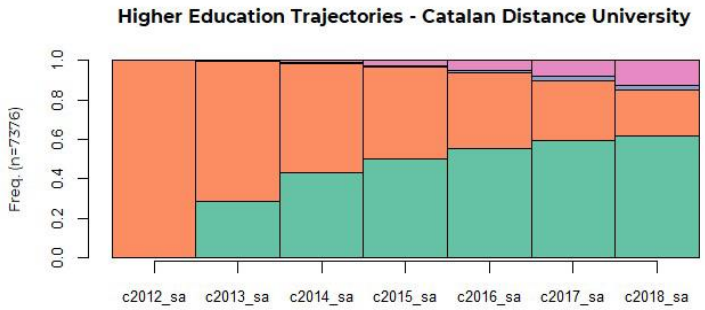
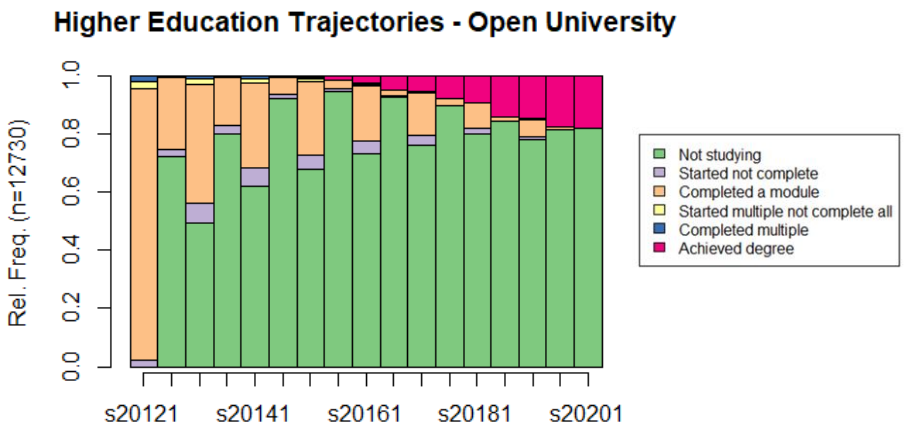
Method 1 – Sequence analysis

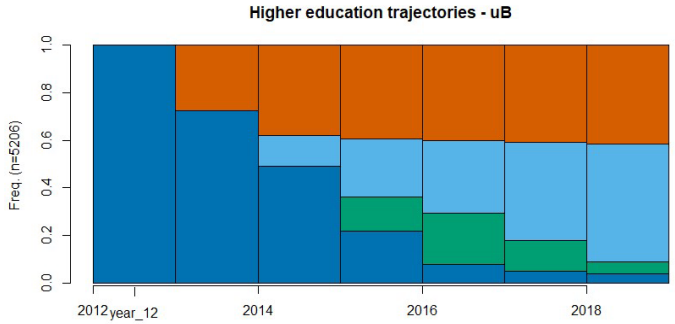












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Summary of sequence analysis

- Different categorisations lead to plots looking different
- We have used ‘Not studying’; Spain, ‘Not Higher Education’; Portugal and France used ‘Not enrolled’
- Every institution shows the largest dropout after the first year and decreases through the years
- Students in face to face institutions tend to graduate earlier
- NB – Portugal, France, and UK degrees are usually 180 ECTS points and three years full time study. In Spain a degree is 240 ECTS points and 4 years

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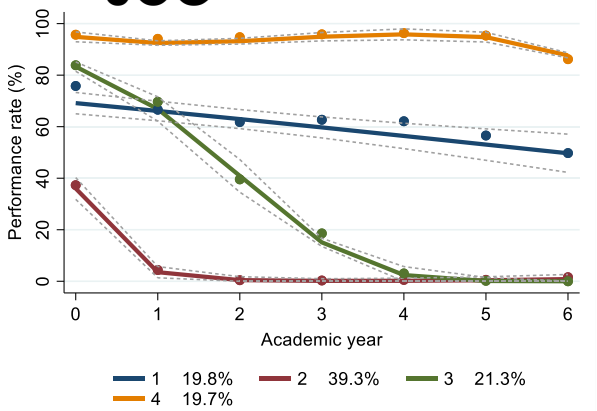
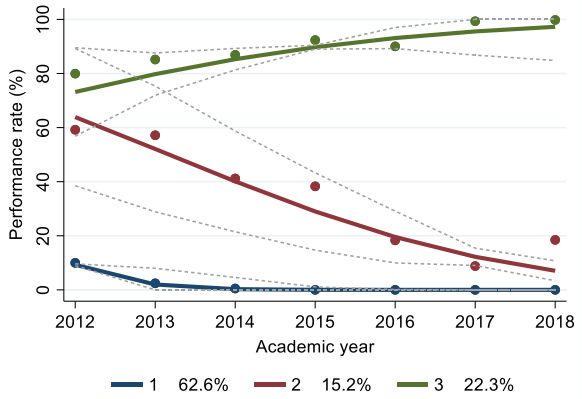
Method 2 – Group Based Trajectory Modelling

UOC



UAb

Just degree in Education n=160



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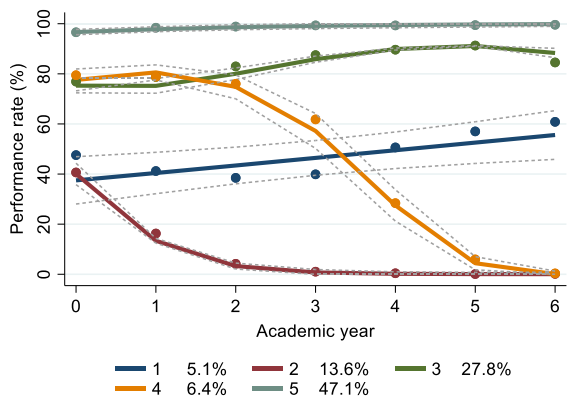
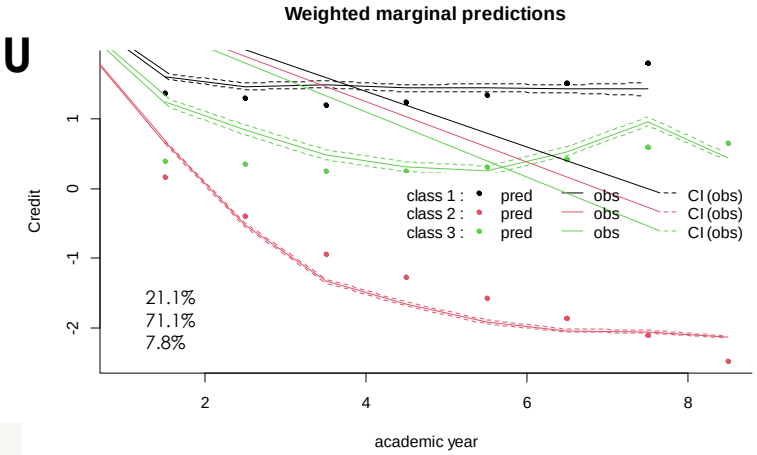
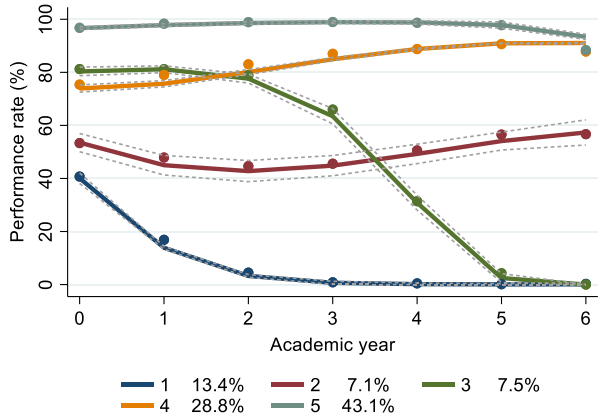


OU

Plus those who drop out after one year (OU) = 4 groups



Catalan University System



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Summary of GBTM - 1

- The two face to face universities both identified 5 student latent groups
- The three online universities each found 3 or 4 latent groups
- Universidade Aberta (Uab) were only able to use data for the 160 students studying their Bachelors degree in Education. This leads to the wide confidence levels
- Each has a group that drop out quickly, and a group that studies consistently well
- They differ in the intermediate groups

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Summary of GBTM - 2

- For the face to face universities there is at least one group that shows an ascending curve. This is interpreted as the students who take longer to adjust to university life/study
- The remaining curves tend to show wider confidence limits – interpret to represent heterogeneity within the group.

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Next steps

- Finalise OU results and interpretations.
- Disemination event

https://www.eventbrite.co.uk/e/promoting-students-successful-trajectories-in-higher-education-tickets-661034079727

- Final report
- papers
- Explore these latent groups further...

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Thank you