



The Eastern England sigma Hub



University of Essex

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## Sustainable Maths and Stats Support in Universities

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# Introduction and overview of talk



- 
- The Essex Maths and Stats Support Centre: Historic
  - Towards a sustainable Help Desk
  - The FMSP (CS)
  - From a Help Desk to a Support Centre
  - Sustainability
  - Tools for teaching and support: Maple TA (DB)
  - Example consultancy projects
  - Conclusion

- The golden age of Mathematics at Essex

In the 70's and 80's great mathematicians such as Winsten, Broyden, Tolland, Atkin, Proudman and nearer to us Dowden and Fremlin, worked at UoE.



From the late 80's a serious decline set in ...

## Recruitment and retention as drivers

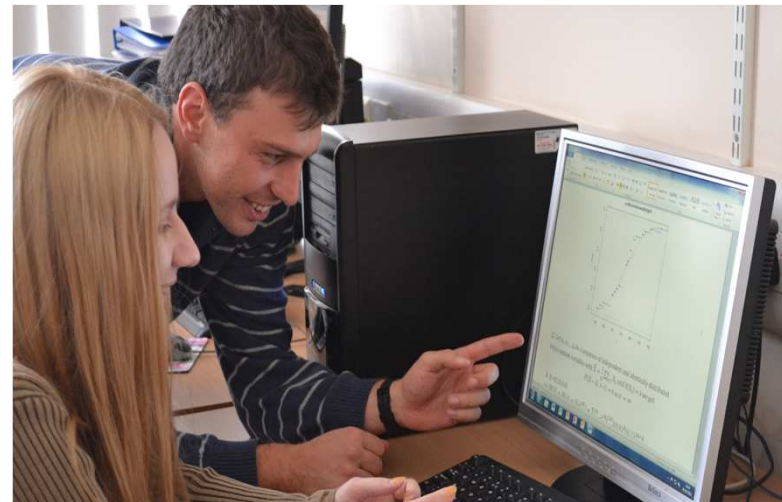


- Low entry grades and low recruitment numbers meant that we had to do more for our students to hang on to them and attract others.



# The Open Door Policy

- Support was provided through operating an Open Door Policy.
- No prior arrangement of meetings was necessary.
- Students just walked into staff offices for help.
- A very expensive support to offer in terms of disturbance in some cases but we still have ODP!



# An early Help Desk

- The Open Door Policy was/is for our students.
- We wanted to promote Maths & Stats across the University.
- A Help Desk was created for all, manned by volunteer staff.
- This improved our standing within the University; we became the most supportive Dept.; we still are!
- It probably improved retention and recruitment. Hard to prove that it did; a lot of factors are at play.



# Towards a sustainable Help Desk



- When the Frontrunners\* program was introduced at UoE, we immediately applied for funding and engaged students to run the desk.
- Help was offered to anyone across the University but also the community.
- Students manning the desk gained proper work experience.
- We still had staff on standby.
- Help was provided free to all except when the problem was beyond students' ability and required staff time.
- It was then treated as consultancy.



\*A program that offered part time jobs to students and support for staff.

# The Maths Support Centre



- At the following round of frontrunners funding, funds were sought for more students and hence more hours of Maths and Stats support.

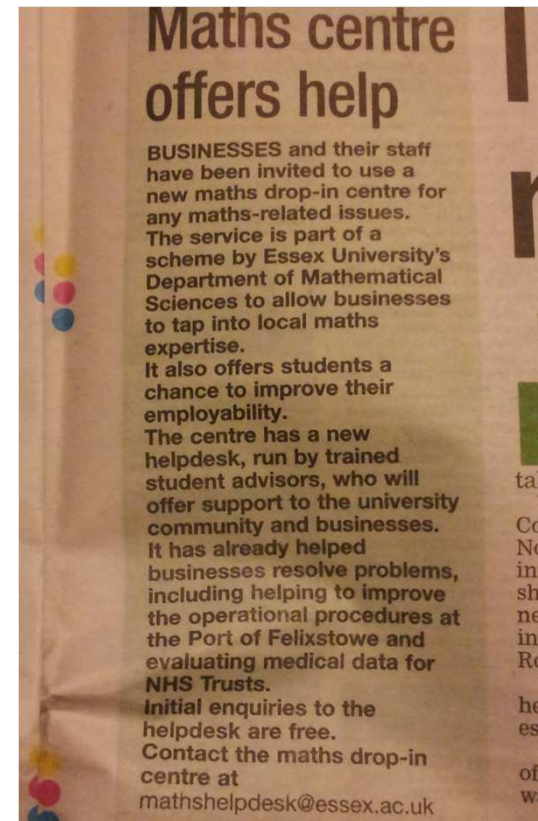




# The Maths Support Centre



- We did our best to bring it to the attention of anyone who might need it!



## Extending the Centre to another UoE campus



- Students in Southend campus requested that we extend support to them too.
- Here, our DA inspects the premises to house the Centre!



## The Further Maths Support Programme (FMSP)



- At the same time the Department hosted a FMSP local area coordinator.
- The Department introduced the Winsten Day to give students from local schools an enjoyable day at UoE and also to promote Maths.



# Sustainability

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- It is mainly spanned by **Income**
  - Income is two-fold
    1. Direct income which is financial
    2. Indirect income which comprises many things:
      - Satisfying the demand for support;
      - Improving the achievements of students (increase the rate of good degrees, produce better permanent documents (theses/dissertations, essays...));
      - Improve employability of students; this is an important KPI in the ranking of HEI;
      - Improve the research output of the institution;
      - Help solve problems of the local businesses; allow local businesses to tap into local expertise;
      - Improve recruitment to Maths and Stats;
      - others ...
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# Sustainability



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- It can also be in terms of
    1. the expertise it can muster to run the Support Centre;
    2. the space/time that can be spared for the provision of support;  
(the ambulant desk!);
    3. the tools that can be used to facilitate the provision of support;
  - If anyone of the above components is missing, the Centre would not be sustainable;
  - Dan Brawn will tell us something about tools that are used at Essex namely to support anyone and particular the 1<sup>st</sup> years.

## Example projects



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- The Beeswax project
  - The Smart Town Centre project

## Conclusion



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- Sustainability is essential for the longevity of a Maths Support Centre;
  - Monetary income is welcome, and perhaps essential, but other aspects should not be ignored when assessing the viability of a Maths Support Centre.

Thank you