

An 'early-intervention' metacognitive skills workshop for academically 'at-risk' students



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Background

Withdrawal from undergraduate study can cause emotional and financial distress and the drop-out rate is high among those who fail summative assessment in first year. Therefore it's important to identify those who are 'at-risk' of failing summative assessment and attempt to address any transitional issues that may have an impact on their studies. Using the Transit tool we can successfully identify students who are 'at-risk' of academic failure *before* they sit summative assessments. However, it is not clear how to help these students. This workshop is an attempt to address and overcome transitional issues in first-year.



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Methods

We identified the 20 most 'at-risk' students from Maths, Medicine and Veterinary Sciences and invited them to a two-hour near-peer led workshop 4 to 12 weeks before exams, depending on the school. For the workshop we:

- Developed content with near-peer tutors focussing on developing metacognitive skills to improve learning.
- Conducted a systematic review of literature pertaining to remediation students 'at-risk' of academic failure.

Following the workshop, participants were asked to complete an evaluation and were invited to a follow-up

Early Warning System - Wed 12th Nov Session Plan

ICE BREAKER (eg. name and hobby)

Explain why they have been invited and what we're planning to cover

Attendees list 5 things that they do well and 5 things that could do with some improvement

open up the following to a discussion:

WHAT WAS UNEXPECTEDLY DIFFERENT (COMPARED TO SCHOOL) WHAT WE'ED WISHED WE HAD KNOWN WHAT HELPED US LEARN WHERE TO GO FOR ADVISE

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structure

structure

structure

had little idea of PALS and Mathis Base

most seemed aware of why were invided

didn't mention Disabilities [Caricilling

was a v. postive workshop didn't want to mention
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Attendees where uncounfortable at the start but becare engageded more during Ex 2

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Early Warning Workshop Agenda
  :00 Introduction and outline from near-pe
        Why the students have been invited
        What will be covered
        Ouestions
 4:15 Near peers will give a short presentation/summary of their experiences on first ye
        What helped the near-peers lear
        What was unexpectedly different from school-level studyir
        Where to go for advice
        Discussion -- what exam techniques worked for them in the past? What might be differen
        about open-book exams?
14:45 Past Paper Revie
        Analyse questions, Plan answers but do not solve completely, Locate relevant
        theorems/definitions in textbool
        Decide on goals/resolutions relating to exam technique and how to approach problems both
 L5:30 Graduate Advice for First Years Vide
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Results

- •All students found the workshop enjoyable and many changed their study habits as a result of attending
- •Attendees felt the project had been helpful and were not distressed by being identified as 'at-risk'
- •No significant differences were observed in immediate summative performance of attendees vs. non-attendees

•Subsequent analysis of later exam performance suggests no long-term improvement, however several of the students who failed the first diet of exams have withdrawn from their courses.

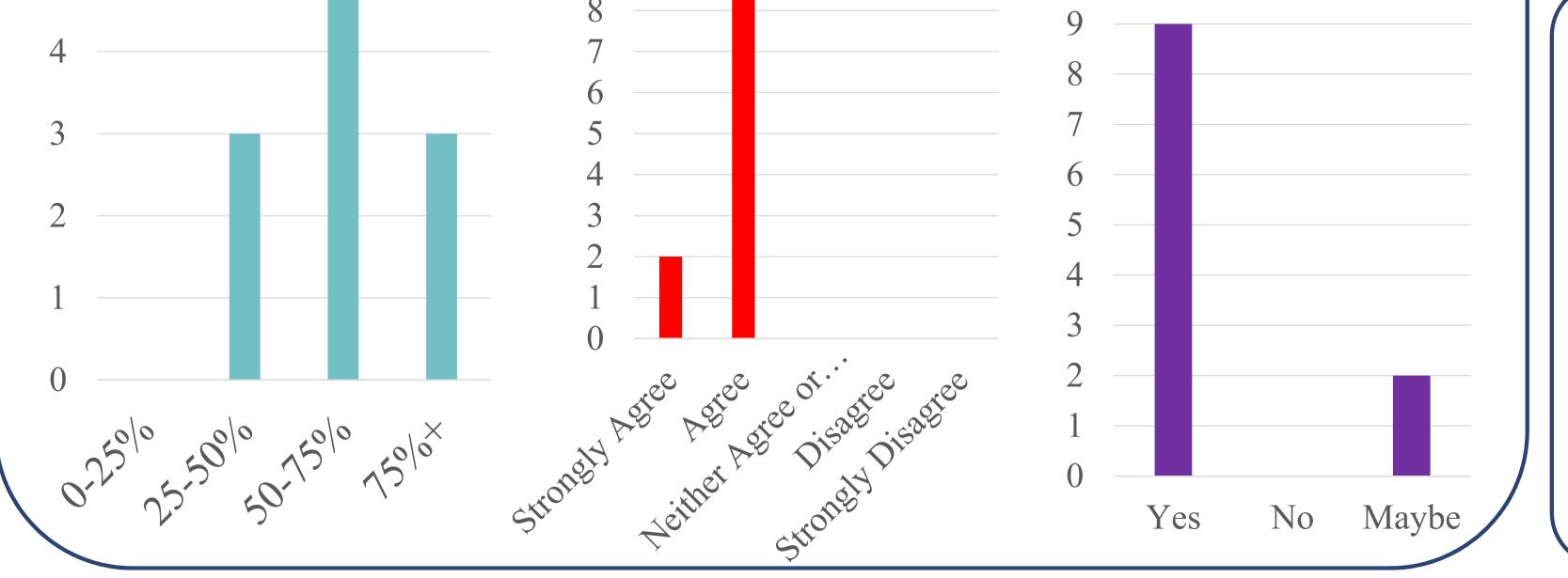
Content was	Workshop was	Changed/plan to
Useful	enjoyable	change learning
	9	practices

video useful -> students seemed to really angage + relate

15:35 Group review of video Which advice did they agree/disagree with? Decide on goals as a result of watching t video.
15:45 Tea/Coffee

Conclusions & Take-home Messages

- Identifying students who are 'at-risk' can be done sensitively
- •Addressing metacognitive skill development alone does not seem to have significantly improved performance
- •There is still work to be done to identify 'at-risk' students' needs and how to address them.
- •The workshop and training materials/guidance notes will be available on a free-to-use basis at http://sefce.net/en-gb/page/transit



References

Arulampalam, W., Naylor, RA., Smith, JP. "A Hazard Model of the Probability of Medical School Drop-out in the UK." *Journal of the Royal Statistical Society: Series A.*167(1): 157–78.

Hattie, J., Biggs, J., and Purdie, N.. "Effects of Learning Skills Interventions on Student Learning: A Meta-Analysis." *Review of Educational Research* 66(2): 99–136.

Pell, G., Boursicot, K., and Roberts, T.. "The Trouble with Resits" *Assessment & Evaluation in Higher Education* 34(2): 243–51.

ADDITIONAL INFORMATION

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