Developing e-learning materials for international students.

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A challenge for HE…

International students are significant proportion of UG cohort (*17.4% HESA 2011/12*).

Frequently encounter problems with English & note-taking i.e. 25% don't understand at all (Mulligan & Kirkpatrick '10)

Academic performance is lower than native speakers
  'Achievement gap'; (Morrison et al. 2005)
  Nursing (Salamonson, Weaver, Everett, Jackson '09)

International students.
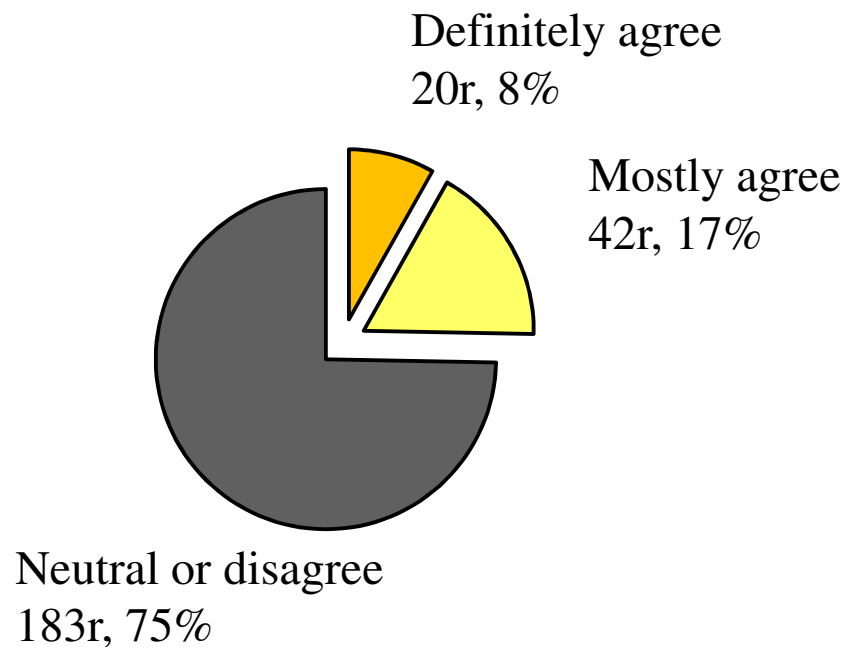# A role for e-learning support ?

- Students determine the *place* and *pace* of learning

- Allow formative assessment (quizzes).
  i.e. Anatomy (Buzzell, Chaimberlain, Pintauro 2002)

- Audio-visual recordings are engaging.
  (i.e. Yrs. 1 & 2 MBChB >80% cohort use materials, '12-13)

- Studies find NESB students use e-learning more
  (Huon, Spehar, Adam & Rifkin '07; Pearce & Scutter '10)

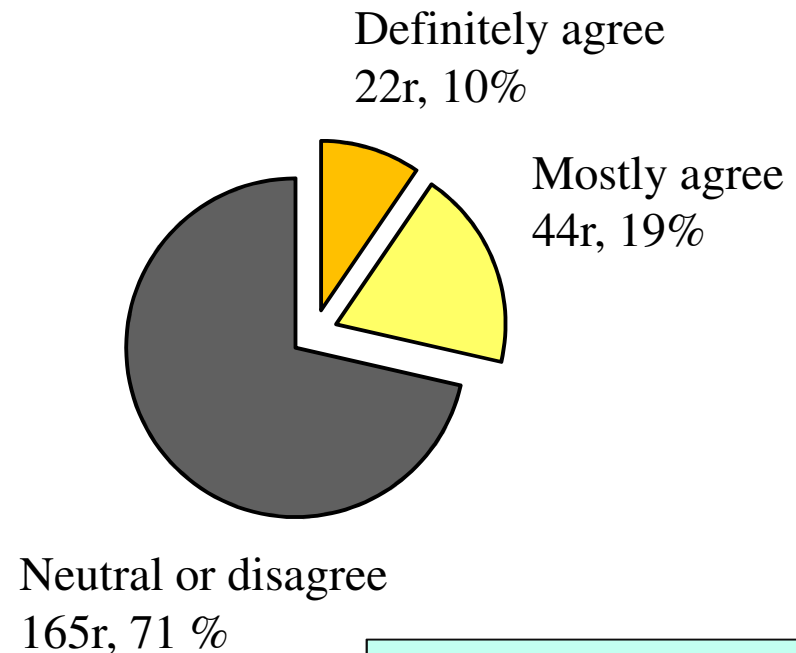E-learning support materials and/or blended learning

Role for whole cohort ?

~25% have problems taking notes in lectures

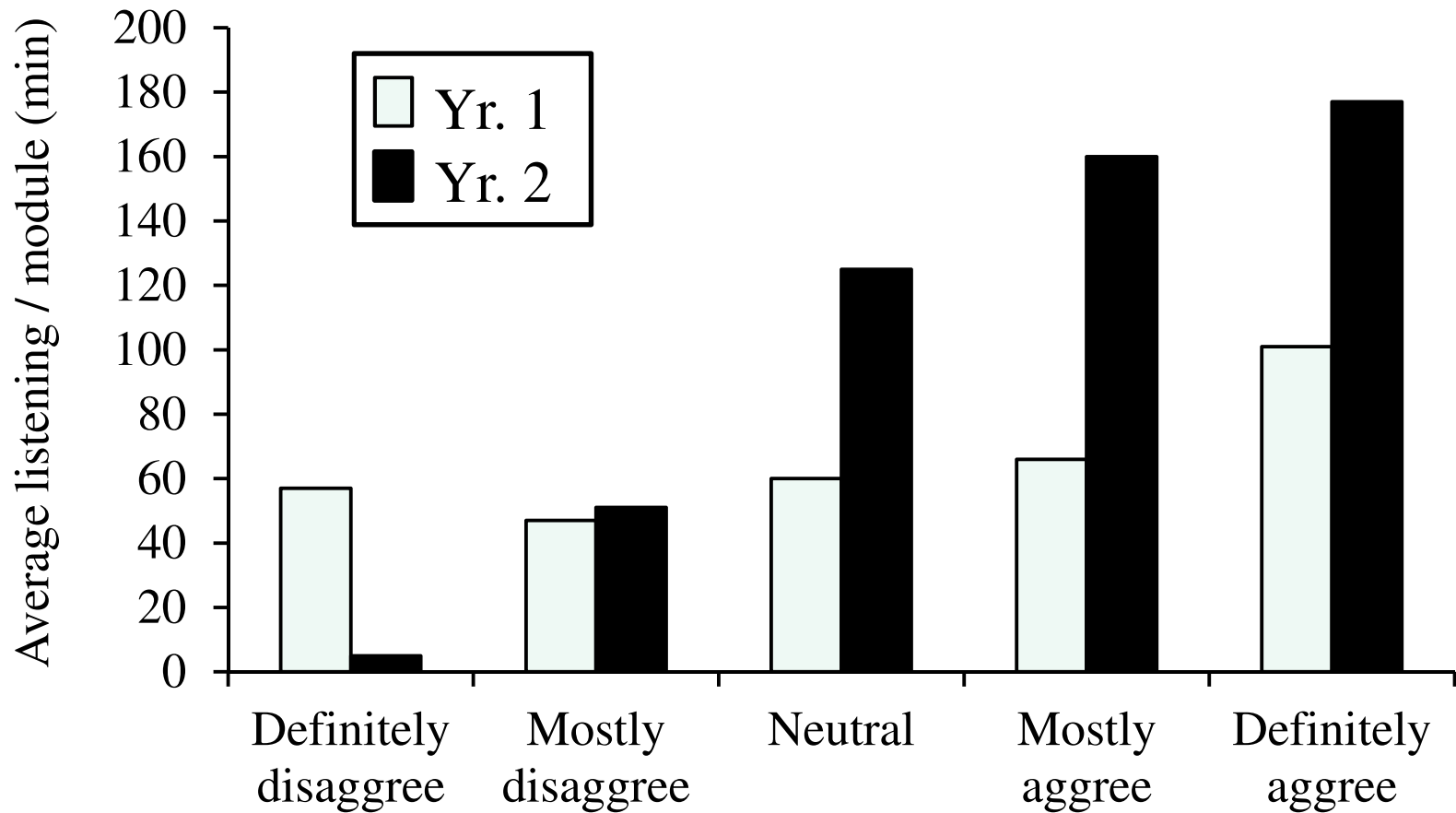I have problems taking notes in lectures...

Definitely agree
20r, 8%

Mostly agree
42r, 17%

Neutral or disagree
183r, 75%

MBChB Yr. 1 2012/13
n = 245

Definitely agree
22r, 10%

Mostly agree
44r, 19%

Neutral or disagree
165r, 71 %

MBChB Yr. 2 2012/13
n = 235

This is not restricted to transition ....

….and this seems to drive engagement with recordings

I have problems taking notes in lectures...

MBChB Yr. 1 & 2
n = 482

The cohort: Birmingham Foundation Academy

- Cohort of ~140 students (*2013 - 14*)
  Extremely diverse nationalities, primarily Far & Middle East

- A-level equivalent students (*Level 0, Year 13*).

- Mix of disciplines
  (i.e*. Engineering, life sciences, law, business…. etc.*)

- Significant cultural and academic challenges:

  - Educationally diverse (*skills, approaches etc.*)
  - Relatively low academic English skills (*EILTS 5.0 - 5.5*)
  - Young (*typically 17 & 18*)

E-learning support materials questionnaire *(Feb '13).*

- Foundation academy cohort (n = 65, 86% response)

- 68% respondents cite factors that reduce ability to take notes

- 66% said they would use recorded materials.

- Focus should be on:

    (i) English (*90% cohort*)
    (ii) Discipline-specific (*66% cohort*)
    (iii) English / disciplinary (*i.e. lab write-ups, presentations*)
        (*51% cohort*)

Aim(s)

Can we develop:

- e-learning materials and/or
- blended learning approaches

That engage and support learning in this cohort of students.

(*Potentially develop best practice for Yr. 1 UG students ?*)

Stream 1: English for Academic Purposes
H Maxwell, R Nickalls & J Sjoberg

- 10 x ~10 min. recordings based on topics around English (i.e. *The writing process: Drafting and proofreading*)

- Generated by experienced EAP staff

- Review step by ex-BFA students (*Current Yr. 1 UG*)

- Roll out as blended learning and/or supplemental materials (*Ongoing. 2013/14*)

Stream 2: Properties of Matter
Drs A. Mottura & W. Griffiths. Engineering & Physical Sciences

- 42 x 6-12 min. video recordings (*tutor + whiteboard*)

- Generated by staff. No student input

- Used in:
  > (i) '*lecture flipping*' approach (Mazur)
  > (ii) Traditional + supplementary materials

- Roll out Semester 1 2013.

Stream 3: Human Biology

Drs V Heath, K Nightingale & P Rainger. Medical School

- On-line quizzes component of e-learning approach

- 6 x reusable learning objects / quizzes
  (i.e. Carbohydrates, DNA)

- Generated by UG students with technical input from staff

- Used as supplementary materials

- Roll out Semester 2, 2014)

Evaluation & development cycle(s)

Questionnaire

- *Home / international background,*
- *EILTS score*
- *Duration and extent of use of materials*
- *Student perception of contribution to learning*
- *Open questions (developmental)*

Download analytics
Number and pattern of access

Focus groups
- *Extent and pattern of access*
- *Benefits & challenges*
- *Developmental*

Questions…

(1) Are e-learning materials / approaches engaging ?

(2) Do they support learning (perceptions, grades ?)

(3) Are there disciplinary effects ?

(4) Are there better / worse approaches to design ?

(5) Roles for nationality / English skills in engagement ?

(6) Is this cohort a useful model for UG students ?

Thanks.

Colleagues.
P. Rainger, V. Heath (MDS)
H. Maxwell, J. Sjoberg, R. Nickells (EAP)
A. Mottura, W. Griffiths (EPS).