

# **Progression and Achievement of First-Year Students in the School of Social Sciences at Nottingham Trent University, 2015-16**

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# Policy Context

- **Internal motivation for the research**
  - **Reduce disparities in the rate of progression for UG students who complete different types of entry qualification (e.g. A Levels, BTEC).**
  - **UET objective for Schools, 2015-16.**
- **External motivation for the research**
  - **Higher Education Act (2004)**
    - Annual access, retention and success agreement with OFFA.
  - **OFFA/HEFCE (2014) *National Strategy for Access and Student Success in Higher Education***
    - Improve student retention and reduce differentials in attainment (p.11).
    - Expected use of 'evidence, evaluation and reasoning' (p.94).
  - **OFFA (2016) 'Strategic Guidance'**
    - Access agreements for 2017-18 to address outcomes through evaluation of practice and to ensure students are supported throughout course.
  - **Equality Act (2010)**
    - Public sector equality duty (s. 149).
    - Overlap between under-represented student groups and protected characteristics (age, race, disability).

# Research Context

- **SoSS Action Research Projects (2015-16)**

- **Designed to reduce disparity in progression and attainment of first-year, F/T, home, UGs by entry qualification.**
- **Average rate of progression across SoSS (2010-11 to 2014-15)**
  - 77.8 per cent, BTEC entrants
  - 89.2 per cent, A Level entrants
- **Average rate of attainment across SoSS (2010-11 to 2014-15)**
  - 65.9 per cent, BTEC entrants
  - 84.1 per cent, A Level entrants
- **Targeted interventions (e.g. one-to-one tutorials)**
  - BA Crim, BSc Psyc with Crim, BA Health and Social Care

- **SoSS Research Evaluation (2015-16)**

- **Initiated by Sam Murphy, SoSS Quality Manager and Lead ('Success for All')**
- **Two aims:**
  - *theoretical* – to explain School-wide disparity in rate of progression for first-year, F/T, home, UGs by *entry qualification*
  - *practical* – to identify ways SoSS can ensure that all students, regardless of entry qualification, progress and fulfil academic potential.
- **Complementary to SoSS Action Research Projects (2015-16)**

# Research Design

- **Comparison**

- **Two large-scale UG courses in SoSS (2015-16): Course A and Course B.**

- **Characteristics**

- Variation in distribution of students by entry qualification *within* course

	Number of Students		Percentage	
	Course A	Course B	Course A	Course B
A Level	160	94	78.82	58.39
BTEC	15	30	7.39	18.63
Combination	21	31	10.34	19.25
Other	7	6	3.45	3.73
All	203	161	100	100

➡ **to understand effect of completing different types of entry qualification on students' performance in first year of HE.**

# Research Design (cont.)

## – Characteristics (cont.)

- Variation in structure of teaching and assessment *between* courses

	Distribution of Contact Time (average hours per week)	
	Course A	Course B
Lectures	7	5
Seminars	3	6
Workshops	0.5	2
Tutorials	1	0.5

# Research Design (cont.)

## – Characteristics (cont.)

- Variation in structure of teaching and assessment *between* courses

Distribution of Assessment (number and weighting)						
	Exams		Individual course work		Group course work	
	Formative	Summative	Formative	Summative	Formative	Summative
Course A	1 mock	5 (4 x 50%) (1X 100%)	0	4 reports (80% in total) 3 essays (90% in total)	1 group pres.	1 poster and pres. (20%) 1 pres. (10%)
Course B	1 mock	2 x 100%	1 essay 1 policy brief	4 essays x 50%	1 group pres. 1 group exercise	1 group pres. (100%)

⇒ to understand effect of differences in configuration of teaching and assessment at course level on students' performance in first year of HE.

# Research Design (cont.)

## – Characteristics (cont.)

- Variation in average rate of progression (per cent) by entry qualification (2011-12 to 2014-15)

	Course A	Course B
A Level	93.1	90.6
BTEC	72.7	74.7
Combined A Level/BTEC	90.7	77.8

## – Hence, two theoretical propositions guiding the research:

- for a given course of study, variation in rate of progression across different categories of entry qualification is effect of *bias* in configuration of teaching, learning, and assessment for that course of study
  - e.g. if Course A is structurally biased *in favour of* A Levels and *against* BTEC, A Level entrants will be more likely to progress than BTEC students;
- for a given category of entry qualification, variation in rate of progression across different courses of study is effect of *variation in degree of bias* in configuration of teaching, learning, and assessment between different courses of study
  - e.g. if degree of structural bias in favour of A Levels and against BTEC is *greater* on Course A than on Course B, A Level entrants will be more likely to progress on Course A than on Course B.

# Research Design (cont.)

- **Mixture of empirical procedures (Danermark et al., 2002, Ch.6)**

- **Extensive**

- Questionnaire administered to first-year UG population for both courses covering
  - perceptions of teaching effectiveness and assessment performance (pre-entry and post-entry)
  - expectations about amount of contact time, assessment, and independent study.
- Data analysed using descriptive statistical methods:
  - for categorical variables
    - » comparison of frequencies using clustered bar charts
  - for interval-level variable
    - » comparison of central tendency, dispersion, modality, skewness, and kurtosis.
- To understand aggregate effects of structures of teaching, learning, and assessment (i.e. tendencies).

- **Intensive**

- 5 focus groups with 21 students from both populations.
  - Course A: 3 focus groups, 11 students.
  - Course B: 2 focus groups, 10 students.
  - Categories of entry qualification of interest represented (A level, BTEC, Combined).
  - Questions covered assessment, independent study, and teaching.
- Data analysed thematically through categorisation and re-categorisation of responses.
- To understand in depth the effects of structures of teaching, learning, and assessment on individual students on both courses.

# Research Design (cont.)

- **Explanation**

- **Theoretical**

- Development of knowledge of effects on students of particular configurations of teaching, learning, and assessment.

- **Applied**

- Application of knowledge of effects of structures and processes of teaching, learning, and assessment to explain disparities of interest.

**Hence, research design is an example of *'theoretical and applied causal contrast explanation'* (Holland, 2013, p.191).**

# Quantitative Evidence for First Proposition (1)

- Comparison of perceptions of post-entry assessment performance by entry qualification, *Course A*
  - A Level entrants perform better in exams and group course work than in individual course work.
    - Exams and group course work constitute 56.25 per cent of total assessment.
    - Individual course work constitutes 43.75 per cent of total assessment.
    - Therefore, evidence of structural bias *in favour of* A Level entrants.
  - BTEC entrants perform better in group course work than in exams and individual course work.
    - Group course work constitutes 18.75 per cent of total assessment
    - Exams and individual course work constitute 81.25 per cent of total assessment.
    - Therefore, evidence of structural bias *against* BTEC entrants.
  - Hence, average rate of progression for BTEC entrants (72.7 per cent) lower than for A Level entrants (93.1 per cent).

# Quantitative Evidence for First Proposition (1)

- Comparison of perceptions of post-entry assessment performance by entry qualification, *Course B*
  - A Level entrants perform better in individual and group course work than in exams.
    - Individual and group course work constitutes 76.92 per cent of total assessment.
    - Exams constitute 23.08 per cent of total assessment.
    - Therefore, evidence of structural bias *in favour of* A Level entrants.
  - BTEC entrants perform better in group course work than in individual course work and exams.
    - Group course work constitutes 23.08 per cent of total assessment.
    - Individual course work and exams constitute 76.92 per cent of total assessment.
    - Therefore, evidence of structural bias *against* BTEC entrants.
  - Hence, average rate of progression for BTEC entrants (74.7 per cent) lower than for A Level (90.6 per cent).

# Quantitative Evidence for First Proposition (2)

- Comparison of perceptions of teaching effectiveness by entry qualification, *Course A*
  - Lectures
    - On average, A Level entrants perceive lectures to be more effective than BTEC entrants perceive them to be.
      - Course A lectures: average 7 hours per week (61 per cent of total contact time per week);
      - therefore, in relation to lectures, evidence of bias in favour of A level entrants.
  - Seminars
    - On average, A Level entrants perceive seminars to be more effective than BTEC entrants perceive them to be.
      - Course A seminars: average 3 hours per week (26.1 per cent of total contact time per week);
      - therefore, in relation to seminars, evidence of bias in favour of A Level entrants.
  - Workshops
    - On average, A Level and BTEC entrants perceive workshops as having the same degree of effectiveness.
      - Course A workshops: average 0.5 hours per week (4.35 per cent of total contact time per week);
      - therefore, in relation to workshops, no evidence of bias.
  - Tutorials
    - On average, A Level entrants perceive tutorials as being more effective than BTEC entrants perceive them to be.
      - Course A tutorials: average 1 hour per week (8.7 per cent of total contact time per week);
      - therefore, in relation to tutorials, evidence of bias in favour of A Level entrants.

# Quantitative Evidence for First Proposition (2)

- Comparison of perceptions of teaching effectiveness by entry qualification, *Course B*
  - Lectures
    - On average, A Level entrants perceive lectures to be more effective than BTEC entrants perceive them to be.
      - Course B lectures: average 5 hours per week (37 per cent of total contact time per week);
      - therefore, in relation to lectures, evidence of bias in favour of A level entrants.
  - Seminars
    - On average, A Level entrants perceive seminars to be more effective than BTEC entrants perceive them to be.
      - Course B seminars: average 6 hours per week (44.4 per cent of total contact time per week);
      - therefore, in relation to seminars, evidence of bias in favour of A Level entrants.
  - Workshops
    - On average, A Level and BTEC entrants perceive workshops as having the same degree of effectiveness.
      - Course B workshops: average 2 hours per week (14.8 per cent of total contact time per week);
      - therefore, in relation to workshops, no evidence of bias.
  - Tutorials
    - On average, A Level entrants perceive tutorials as being more effective than BTEC entrants perceive them to be.
      - Course B tutorials: average 0.5 hours per week (3.7 per cent of total contact time per week)
      - therefore, in relation to tutorials, evidence of bias in favour of A Level entrants.

# Qualitative Evidence for First Proposition (1)

- Expected amount of teaching, independent study, and assessment in HE depends on FE experience.
  - E.g. comments on teaching:
    - ‘... I thought uni was going to be a lot more ... ‘cause we only do 13 hours a week ... timetable; I thought it was going to be ... a lot more ...’ [BTEC entrant, Course B]
    - ‘I think I was expecting a bit more contact hours.’ [Combined entrant, Course A]
    - ‘It’s a lot less than I expected ... the lectures ... I have one each day, maximum. I thought there was going to be a lot more.’ [A Level entrant, Course A]
  - E.g. comments on independent study:
    - ‘... I also thought there was going to be less independent study ...’ [A Level entrant, Course A]
    - ‘... I didn’t expect to have to do as much research into other people’s research, if that makes sense!’ [A Level entrant, Course A]
    - ‘I thought that ... you’d have ... questions to answer before the lectures ... and you’d ... review those questions in the lectures ... But ... we’ve just had a lot of ... reading chapters. But they don’t really come up in the lectures, though; it’s just something that you should do for yourself ... which was odd! ... I thought we’d get tested on those things!’ [Combined entrant, Course A]

# Qualitative Evidence for First Proposition (1)

- E.g. comments on assessment:
  - 'I ... thought we'd have ... something ... frequent; like, throughout the term have ... assessments here and there. But it ... all seemed to be ... right at the end.' [BTEC entrant, Course B]
  - 'It was just more the frequency for me. ... So coming from BTEC to ... degree, I felt like with my BTEC it was much more consistent ... with a degree you've got ... longer breaks ...' [BTEC entrant, Course B]
  - 'I didn't think there was going to be as much group work as there is ... group assessment ...' [A Level entrant, Course A]
  - 'I think I had a bit more work in A Level, just 'cause I had about two written assessments every week to hand in ... so I expected a little bit more.' [A Level entrant, Course A]
  - 'I think that ... compared to what I did for A Levels, there's definitely a lot more assessment ... just a bit more spread out; 'cause for my one it was ... just exams at the end of the year ... whereas ... coming into this course ... I sort of thought might be a bit similar ... I didn't realise we'd be doing things like presentations and different types of assessments like essays and ... multiple-choice ... exams ...' [A Level entrant, Course A]
- The greater the difference between FE and HE experience, the more expectations are confounded and the greater the difficulty in understanding approaches to teaching and the link to assessment in HE (since understanding informs expectations).
- Supports quantitative evidence of variation in perceived teaching effectiveness by type of entry qualification.

# Qualitative Evidence for First Proposition (2)

- However, only a tendency because expected amount of teaching, independent study, and assessment depends on experience of other social contexts (e.g. friends, family, work colleagues, social media) as well as FE experience.
  - E.g. comments on teaching and assessment:
    - ‘... I knew there’d be ... lectures ... But ... I’d heard from other people who went to university and did other courses ... I thought there’d be a bit more workshop and a bit more *personal* contact with the lecturers ...’ [A Level entrant, Course A]
    - ‘I knew quite a few people who have done [Course A] and ... we had a couple of ... people come and talk to us in our lessons ... in sixth form to tell us ... what it was like for them ... and also my Mum ... recently went back to uni a few years ago ... so I ... had a ... clear expectation of what it was going to be like ...’ [A Level entrant, Course A]
    - ‘I thought there’d be quite a lot ‘cause where I used to work we had a ... second-year uni student. \*\*\* was just telling me ... the number of contact hours in first year is quite a lot ‘cause they try and help you adjust to uni life ...’ [A Level entrant, Course A]
  - E.g. comments on independent study:
    - ‘I ... just looked it up on the Student Room before I came and it was, like, “You need to be working ... full time ... 9 ‘til 5.”’ [A Level entrant, Course A]
    - ‘... my college ... wanted ... everyone to go to university so ... they were saying you need to do a lot of independent study. So I think I knew that you had to do quite a lot ...’ [A Level entrant, Course A]

# Quantitative and Qualitative Evidence for First Proposition

- Therefore, there exists both quantitative and qualitative evidence in support of the theory that bias in the configuration of teaching, learning, and assessment explains variation in the rate of progression across different types of entry qualification, for a given course of study.
- However, there is also quantitative and qualitative evidence that variation in the *quality* of teaching and assessment explains the variation in the rate of progression:
  - e.g. for a given course of study and entry qualification, variation in *spread* of students' responses to questions about teaching effectiveness across different methods of teaching
  - e.g. for a given course of study and entry qualification, variation in students' comments about quality of teaching and assessment across different methods of teaching – in particular, in relation to
    - the approach to small-group teaching
    - the quality of feedback on assessment
    - the level of confidence, enthusiasm, and organisation.

# Quantitative Evidence for Second Proposition

- Comparison of perceptions of teaching effectiveness by course
  - Lectures
    - On average and on both courses, A Level entrants perceive lectures as being more effective than BTEC entrants perceive them to be.
      - Course A lectures: average 7 hours per week (61 per cent of total contact time per week)
      - Course B lectures: average 5 hours per week (37 per cent of total contact time per week)
      - therefore, in relation to lectures, greater degree of structural bias in favour of A Level entrants on Course A than on Course B.
  - Seminars
    - On average and on both courses, A Level entrants perceive seminars to be more effective than BTEC entrants perceive them to be.
      - Course A seminars: average 3 hours per week (26 per cent of total contact time per week)
      - Course B seminars: average 6 hours per week (44.4 per cent of total contact time per week)
      - therefore, in relation to seminars, greater degree of structural bias in favour of A Level entrants on Course B than on Course A.

# Quantitative Evidence for Second Proposition

## – Workshops

- On average and on both courses, A Level and BTEC entrants perceive workshops as having the same degree of effectiveness.
  - Course A workshops: average 0.5 hours per week (4.3 per cent of total contact time per week)
  - Course B workshops: average 2 hours per week (14.8 per cent of total contact time per week)
  - therefore, in relation to workshops, greater degree of structural bias in favour of both A Level and BTEC entrants on Course B than on Course A.

## – Tutorials

- On average and on both courses, A Level entrants perceive tutorials as being more effective than BTEC entrants perceive them to be.
  - Course A tutorials: average 1 hour per week (8.7 per cent of total contact time per week)
  - Course B tutorials: average 0.5 hours per week (3.7 per cent of total contact time per week)
  - therefore, in relation to tutorials, greater degree of structural bias in favour of A Level entrants on Course A than on Course B.

# Qualitative Evidence for Second Proposition

- Students evaluate teaching methods, learning activities, and assessment *relationally*.
  - Lectures
    - Students on Course A and B acknowledged implicitly the relationship between lectures and assessment through exams when
      - identifying a lack of provision of mock exams
      - identifying a lack of guidance on exam technique
      - criticising the timing of mock exams
      - expecting independent study to involve reading in order to answer questions that would be reviewed in lectures.
  - Seminars
    - Students on Course A and B acknowledged implicitly the relationship between seminars and assessment through individual course work when
      - describing effective and ineffective seminar teaching
      - criticising the timing of teaching
      - criticising the bunching of submission deadlines
      - identifying a lack of consistency between formative and summative feedback.

# Qualitative Evidence for Second Proposition

## – Workshops

- Students on Course A acknowledged implicitly the relationship between workshop teaching and learning activities when
  - criticising the length of workshops.

## – Tutorials

- Students on Course A acknowledged implicitly the relationship between tutorial teaching, learning activities, and assessment through course work when
  - criticising the lack of formative, 'in-class' feedback on drafts of course work essays
  - valuing the opportunity to choose their own topic of study and devise their own essay question.
- Students on Course B acknowledged implicitly the relationship between tutorial teaching, learning activities, and a lack of assessment when
  - identifying a lack of frequency of tutorials
  - identifying a lack of focus on improving study skills and on completing assignments
  - criticising the scheduling of tutorials in the course timetable.

- Supports quantitative evidence of variation in perceived teaching effectiveness by course.

# Quantitative and Qualitative Evidence for Second Proposition

- Therefore, there exists both quantitative and qualitative evidence in support of the theory that variation in the degree of bias in the configuration of teaching, learning, and assessment across different courses of study explains the variation in the rate of progression, for a given category of entry qualification.
- However, there is also quantitative and qualitative evidence that variation in the *quality* of teaching and assessment explains the variation in the rate of progression across different courses:
  - e.g. for a given method of teaching and entry qualification, variation in *spread* of students' responses to question about teaching effectiveness between Course A and Course B
  - e.g. for a given method of teaching and entry qualification, variation in students' comments about quality of teaching and assessment between Course A and Course B – in particular, in relation to
    - the approach to small-group teaching
    - the quality of feedback on assessment
    - the level of confidence, enthusiasm, and organisation.

# Recommendations for Practice

- Student expectations

- SCCO should provide *higher education experience scheme* for sixth form and FE college students.
- HoDs and Marketing should revise course information provided to potential applicants (e.g. on NTU web pages, in UG paper prospectus, at Open Days).

- Student induction

- Course leaders should supply course-specific *study guide* to new entrants at start of course.
  - Distinct from course/module handbook.
  - Sets out study objectives for first year and includes assessment and feedback schedule.

- Module design

- Module leaders should ensure that
  - relationships between module aims, intended learning outcomes, methods of teaching, learning activities, and methods of assessment are *coherent*
  - students are given some control over content of assessment
  - timing of assessment is appropriate
  - teaching staff provide group-based learning activities, preparatory learning tasks, and formative, 'in-class' feedback.

# Recommendations for Practice

- Course design

- Course leaders, course committees, and periodic course review committees should ensure that
  - the relationships between course aims, intended learning outcomes, methods of teaching, learning activities, and methods of assessment are coherent
  - overall weighting of assessment is not biased towards a particular type of experience of further education
  - assessment deadlines are not bunched together
  - contact time is distributed evenly across the week
  - tutorial sessions are provided every week in first year and focus on referencing and citation skills
  - office hours are well publicised.
- Deputy Dean should ensure consistency in structure of assessment across different courses of study in the School.

- Quality of teaching and assessment

- Teaching

- HoDs should ensure that capability to engage students effectively is given sufficient weight in recruitment of teaching staff.
- Deputy Dean/HoDs/CPLD should introduce *annual* teaching observation scheme and ensure understanding of student engagement requirements of *Quality Handbook*.

- Assessment

- HoDs should review assessment feedback to ensure compliance with grade-based assessment framework and understanding of assessment requirements of *Quality Handbook*.

# Conclusion

- Structural explanation a way of going 'beyond the data'.
  - Reducing disparities in UG rates of progression depends on understanding what is causing them.
- Inclusivity of UG student learning experiences, and hence equal opportunity to succeed and progress across the School, depends on removing
  - *bias* in the configuration of teaching, learning and assessment at course level
  - *inconsistencies* in the quality of teaching and assessment within the same course of study and between different courses of study.

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# Any Questions?

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