

The relationship between language proficiency and academic attainment in higher education

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Language and literacy skills of home and international university students: How different are they, and does it matter?\* DANIJELA TRENKIC Department of Education, University of York, UK MEESHA WARMINGTON Department of Human Communication Sciences, University of Sheffield, UK

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The effects of coaching and repeated test-taking on Chinese candidates' IELTS scores, their English proficiency, and subsequent academic achievement

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#### Language and literacy skills of home and international university students: How different are they, and does it matter?\*

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Although international students experience lower attainment at university than home studer reasons are poorly understood. Some question the role of language proficiency as international language qualifications. This study investigated language and literacy of international stude



#### Meesha Warmington







Invited talks and advice

#### UCL

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## Internationalisation of higher education

Over 5 million international students in tertiary education (UNESCO, 2019)

Over 550,000 international students at UK universities 18% of undergraduate students and 60% of full-time masters students are from outside the UK Over 120,000 Chinese students at UK universities

(HESA, 2019-20 data)

Hugely important socially, academically and financially International students boost UK economy by over £20bn

(HEPI/Caplan, 2018)



# Academic achievement of international students in the UK

Educational outcomes for international students not as good as for home students:

They achieve fewer 'good degrees' (i.e. first or upper second class honours) compared to home students

(Morrison et al, 2005; HESA data for 1995-2000)

Chinese students

(Crawford & Wang, 2015; Iannelli & Huang, 2014; HESA data 1998-2009)

Most likely to achieve a 2.2

Performance worsened historically (1998-2009):

- A decline in 2.2s from 50% to 43%
- A rise in 3<sup>rd</sup> from 14% to 21%
- The odds of achieving a good degree in 2009: 32% of a home student



### Language, literacy and academic success

Language and literacy skills: vital for success in any academic subject, at all levels of education

Limited mastery – diminishes the opportunity to learn + makes assessment difficult

#### School-age populations (monolingual and bilingual)

(August & Shanahan, 2006; Hakuta, Butler & Whitt, 2000; Kieffer, 2008; Preevo, Malda, Mesman & van Ijzendoorn, 2016)

#### International students in HE

(Elder & von Randow, 2008; Read & Hayes, 2003)

Vocabulary knowledge – particularly predictive of academic success (Daller & Phelan, 2013; Daller & Xue, 2009; Qian, 2002; Roche & Harrington, 2013)

Reading comprehension and writing – explain additional variance (Harrington & Roche, 2014; Trenkic & Warmington, 2019)



#### How different are language skills of international & home students?

How different are these skills on arrival?

How long does it take to close the gap?

Where is the threshold after which language proficiency stops being a barrier to academic achievement?



## Trenkic & Warmington (2019)

Comparison of two groups of university students: Chinese EFL students, B2/C1 CEFR level (IELTS 6.5-7.5) British home students (ENS)



#### Measures:

A battery of cognitive and linguistic measures Academic success: weighted average score across 120 credits number of failed credits

### Measures and main results (Trenkic & Warmington, 2019)

General cognitive ability Non-verbal intelligence



Wechsler Abbreviated Scale of Intelligence (Wechsler, 1999)

#### No difference between groups



Linguistic measures Vocabulary: Receptive and productive Sentence processing: speed and accuracy Text reading: reading rate, comprehension Text writing (summarisation): writing rate, number of content points recalled, spelling error rate Phonological measures Phonological retrieval (rapid naming, digits) Elision (say 'cup' without /k/)

#### Very large group differences

#### Results: Nation's Vocabulary size test (receptive)





Chinese students had significantly smaller receptive vocabulary size compared to British students (effect size: 4.7 SDs) ... ... and it took them considerably longer to access this knowledge (effect size: 2.9 SDs)

#### Results: vocabulary (expressive)



There were large differences in expressive vocabulary size between the Chinese and the British students at both T1 and T2.

T1: 2.9 SDs

T2: 2.2 SDs

#### Results: all linguistic measures

Very large differences between home students and Chinese international students arriving with B2/C1 level of proficiency in English

No catching up on any of the measures

Group differences were just as large at the end of the year as they were at the beginning (and sometimes larger)

Context: far greater difficulties with reading and writing than those reported on the same tests for home students with dyslexia

 $\rightarrow$  A striking disadvantage

**Q:** Do these findings generalize to other groups of international students?

# Mackiewicz (PhD in progress)

Comparison of three groups of university students:

- British home students (ENS)
- Chinese EFL students
- EFL students with European L1s



Autumn / Winter 2019Autumn / Winter 202059 ENS<br/>60 EFL with European L1s<br/>58 EFL with Chinese L1s48 ENS<br/>50 EFL with European L1s<br/>49 EFL with Chinese L1s

Measures:

Study design:

A battery of cognitive and linguistic measures



#### Preliminary analyses (Mackiewicz, in progress)

No group differences on general cognition (non-verbal intelligence; working memory)

Significant differences on linguistic measures between home students and international students (ENS >\* EFL)

Two main patterns at the start:

ENS > EFL with European L1s > EFL with Chinese L1s

[ENS = EFL with European L1s] > EFL with Chinese L1s

The main pattern 1 year later:

All groups make similar gains

No closing of the gap for the EFL Chinese group

But the group of students with European L1s closes the gap on some measures

#### Sample of results (Mackiewicz, in progress)





# Shi (PhD in progress)

Large online survey (N=1,151)

Comparison of four groups of university students:

- EFL from China, N=150
- EFL from elsewhere, N=269
- ENS from the UK, N=623
- ENS international students, N=118

English vocabulary (LexTALE)



#### So how different are language skills of international & home students?

Very different for some subpopulations but not all

Chinese students face particularly large linguistic challenges

Trenkic & Warmington (2019); Mackiewicz (in progress); Shi (in progress)

Students with European L1s (Mackiewicz, in progress)

- stronger English skills than Chinese students
- perform undistinguishably from British students on tasks measuring grammar, writing (total number of words, spelling) and phonological skills
- Make larger linguistic gains during their studies (text comprehension)
- $\rightarrow$ International students = a diverse bilingual community

Findings on one subpopulation do not necessarily generalise to other subpopulations

#### Where do the differences between EFL groups stem from?

- Language proficiency before / upon arrival
  - Typological distance between L1 and English Vs.
  - Approaches to English language teaching in the local context
  - Exposure to English outside of school (TV, entertainment, travel)
  - Approaches to English language testing (Hu & Trenkic, 2019; Trenkic & Hu, 2021)
- Gains made during the studies
  - Typological distance between L1 and English
  - Vs.
  - Level of English skills on arrival
  - Exposure to and use of English in daily life (e.g. the number of compatriots on the course, social preferences)

## Language skills and academic success in HE

Which linguistic measures on arrival correlate with academic achievement? (Trenkic & Warmington, 2019)



British students:

No measure correlated significantly with academic achievement

#### **Predictors of Chinese students' academic success**

English skills on entry – strongly linked to academic success



#### **Predictors of British students' academic success**

Home students' language skills – not predictive of their academic success



#### Summary and implications



Language skills seem to constrain academic success only when they are below a certain threshold of proficiency

 $\rightarrow$ This threshold is not aligned with the minimum language entry requirements

# Where is the threshold after which language stops being a barrier to academic performance?

IELTS test scores guidance for IELTS test scores and academic success in educational institutions Trenkic & Warmington (2019) 80 Linguistically Linguistically demanding less demanding **Band score** academic academic 75 courses courses 70 mark 7.5 - 9.0Acceptable Acceptable 6.5 65 Average I 7 Probably 7.0 Acceptable acceptable 7.5 60 English study Probably 6.5 needed acceptable 55 English study English study 6.0 needed needed 50 **IELTS** on arrival English study English study 5.5 needed needed



# Is CEFR level B2/C1 sufficient for successfully pursuing university education?

It depends on the definition of success:

YES – if success = 'pass'

all bar one Chinese students in Trenkic & Warminton (2019) got the qualification

NO – if success = achieving what one is academically capable of; B2/C1 level is a barrier for learning and for academic performance

→International students are often capable of doing much better than their language abilities allow them to

→Systematic disadvantage – needs addressing

#### Recommendations

- →Universities should be cautious when setting the language entry criteria so as not to compromise the educational experience and outcomes of international EFL students
- →The sector should make students aware that reaching the minimum English proficiency criteria set by their programme is unlikely to be sufficient to enable them to perform to the level of their ability
- →Allowing study and assessment accommodation (extra time; access to dictionaries) for students accepted with proficiency levels that do not indicate full readiness to study in English

#### Recommendations

→Universities / HESA should collect the language background and English proficiency data, so that better informed analyses and decisions could be made

→Funding for research on effective interventions for language and literacy skills development in the university context

# Thank you!

