The effects of bilingual schooling on language learning motivation and proficiency

Karen Dunn
Barry O’Sullivan
British Council
Janina Iwaniec
University of Bath

AEA Nov 2018
Introduction: English Impact project

• Data reported on is from a wider British Council project: English Impact 2017

  • Offers an overview of the English language capability of a region or country
  • Supports true evidence-based policy decisions by offering governments and ministries reliable and meaningful evidence
  • Allows for comparisons to be made internally and externally

• 4 regions/countries:
  • Madrid, Spain; Bogota, Colombia; Sri Lanka; Bangladesh

https://www.britishcouncil.org/exam/aptis/research/english-impact
Focus on Madrid’s bilingual programme

• The Madrid region of Spain has a large bilingual state school programme – both primary and secondary level – strongly supported by regional government

• **Globally**, English language bilingual schooling (or EMI/CLIL) is a growing, but not uncontroversial area of education (see e.g. Dearden, 2015)

• **Locally**, anecdotal assumption is that bilingual education replicates privilege
  • *High English language assessment outcomes do not automatically garner support*
  • *English Impact provides an opportunity to look beyond proficiency*
Talk overview

- Research questions and previous studies
- Sampling and data collection
- Questionnaire
- Results
- Discussion and future directions
Research questions

• RQ1 What were the levels of English proficiency at bilingual versus non-bilingual schools?
  • 1.1 Assessment outcomes in each skill area by school type (bilingual/non-bilingual)
  • 1.2 Assessment outcomes by school type and by SES

• RQ2 How did motivational profiles compare between school types?
  • 2.1 Levels of motivation by SES and school type (bilingual/non-bilingual)
  • 2.2 Relationships between motivational scales

• RQ3 What is the relationship between language learning motivations and proficiency?
Research questions

- RQ1 What were the levels of English proficiency?
  1.1 Assessment outcomes in each skill area by school type (bilingual/non-bilingual)
  1.2 Assessment outcomes by school type and by SES

- RQ2 How did motivational profiles compare between school types?
  2.1 Levels of motivation by school type (bilingual/non-bilingual)
  2.2 Relationships between motivational scales

- RQ3 What is the relationship between language learning motivations and proficiency?

  Not a straightforward relationship (e.g. Galloway, Kriukow & Numajiri, 2017)
Research questions

- RQ1 What were the levels of English proficiency?
  1.1 Assessment outcomes in each skill area by school type (bilingual/non-bilingual)
  1.2 Assessment outcomes by school type and by SES

- RQ2 How did the motivational profiles compare?
  2.1 Levels of motivation by school type
  2.2 Relationships between motivational areas

- RQ3 What is the relationship between language learning motivations and proficiency?

Research indicates higher levels of motivation amongst students in bilingual schools (Alonso et al., 2008; Lasagabaster & Ruiz de Zarobe, 2010), although these differences are not always found to be significant (Arribas, 2016).

However, many of the studies in this area have not used a representative sample.

Not a straightforward relationship (e.g. Galloway, Kriukow & Numajiri, 2017).
Research questions

• Not a straightforward relationship (e.g. Galloway, Kriukow & Numajiri, 2017)

• Research indicates higher levels of motivation amongst students in bilingual schools (Alonso et al., 2008; Lasagabaster & Ruiz de Zarobe, 2010), although these differences are not always found to be significant (Arribas, 2016)

• However, many of the studies in this area have not used a representative sample

• A surprisingly under-researched area, findings are also somewhat contradictory (e.g. Moskovsky, Racheva, Assulaimani, & Harkins, 2016; Saito, Dewaele, Abe, & In’nami, 2019)
Research questions

• RQ4 What is the effect of schooling type on the motivation of students from different socio-economic (SES) backgrounds?
  • Focus on variables with closest relationship with proficiency
  • Understand how school type interacts with SES groups
  • Greatest relevance at policy level for Madrid MoE

• Broader relevance for second language acquisition as this has not been researched previously using a robustly sampled dataset
SAMPLING AND DATA COLLECTION
Sampling

- Government-funded schools in Madrid region (702 high schools: 392 Charter; 310 State)
- 170 schools sampled; including over-sampling of Bilingual schools
  - 125 Non-Bilingual schools and 45 Bilingual Schools

<table>
<thead>
<tr>
<th>STRATIFICATION VARIABLE</th>
<th>Variable labels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilingual education</td>
<td>Bilingual Schools/Non-Bilingual schools</td>
</tr>
<tr>
<td>School type</td>
<td>Charter schools/ State schools</td>
</tr>
<tr>
<td>Geographic region</td>
<td>North/South/East/ West/Capital</td>
</tr>
</tbody>
</table>
Sampling

Target population:
- Grade 4
- Age 15.5 years
- Studying 90 minutes English per week

Two-stage cluster sample
- designed by Australian Council for Educational Research (ACER)
- Criteria for representativeness met international standards
Assessment tools

51-question survey - delivered in Spanish
• school and language learning background, socio-economic information, and language learning motivations

English language test - Aptis for Teens
• Reading, writing, speaking and listening, plus grammar and vocabulary
THE QUESTIONNAIRE
Motivation Scales

Scale 1 – Personal language goals
Scale 2 – English self-confidence
Scale 3 – Social expectations
Scale 4 – Parental encouragement
Scale 5 – Global communication goals
Scale 6 – Future opportunities
Scale 7 – Interest in language learning
Scale 8 – Level of effort
Motivation Scales

Present and Future Me
External Influence/Pressure
Perceived Value of English
Engagement with Language Learning

Questions presented in candidates’ first language
Each scale has 4 items with 6-point Likert response
Items randomized
Questionnaire delivered immediately prior to proficiency test

Dörnyei (2005); Iwaniec (2014); Taguchi et al. (2009); Ryan (2009)
Motivation Scales

Present and Future Me

External Influence/Pressure

Perceived Value of English

Engagement with Language Learning

“I imagine myself comfortably writing emails in English”

“I usually get good marks in English”

“Studying English is important to me because people around me expect me to be able to do so.”

“My parents have stressed the importance English will have for me in the future”

“If I could speak English well I could get to know more people from other countries via the internet”

“I need English for my future career”

“I look forward to my English classes”

“I think I’m doing my best to learn English”
Socio-Economic Status

Construction of SES variable:
• Derived from student questionnaire responses
• Using recognised PCA approach Caro and Cortés (2012)
RESULTS
## Student profile

<table>
<thead>
<tr>
<th>DEMOGRAPHIC VARIABLE</th>
<th>Non-bilingual school participants</th>
<th>Bilingual school participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>51.2 % Female; 48.8% Male</td>
<td>50.2 % Female; 49.8% Male</td>
</tr>
<tr>
<td>Age</td>
<td>Mean age: 15.61 years</td>
<td>Mean age: 15.60 years</td>
</tr>
<tr>
<td>Language most often spoken at home</td>
<td>93.6% Castilian Spanish; 5.7% Other; 0.7% English</td>
<td>93.7% Castilian Spanish; 5.5% Other; 0.8% English</td>
</tr>
<tr>
<td>Country of birth</td>
<td>83.3% Spain; 16.7% other</td>
<td>87.0% Spain; 13.0% other</td>
</tr>
<tr>
<td>Pre-school attendance</td>
<td>89.8% attended pre-school; 10.2% didn’t attend pre-school</td>
<td>92.6% attended pre-school; 7.4% didn’t attend pre-school</td>
</tr>
</tbody>
</table>
Student profile

- **Socio-economic status**

- Based on scores calculated from information provided by participants

- Non-significant difference

<table>
<thead>
<tr>
<th>Students</th>
<th>Lower SES</th>
<th>Higher SES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilingual school</td>
<td>242 (46.2%)</td>
<td>282 (53.8%)</td>
</tr>
<tr>
<td>Non-bilingual school</td>
<td>644 (51.6%)</td>
<td>605 (48.4%)</td>
</tr>
</tbody>
</table>
RQ1: ENGLISH LANGUAGE PROFICIENCY
RQ 1.1: Assessment outcomes by school type

- Mean performance by skill area for bilingual and non-bilingual schools

![Graph showing assessment outcomes by school type]
RQ 1.2: Assessment outcomes by school & SES

• Mean assessment outcomes: school type by SES group

• All differences between SES groups at the same school type are significant
RQ2: MOTIVATION PROFILES
RQ 2.1: Motivation profiles by SES

- Results of multigroup CFA analysis (Mplus 8)

- Significant differences between groups on all scales
RQ 2.2: Motivation profiles by school type

Levels of motivation

Mean factor score

- confidence
- personal goals
- interest
- effort
- communication
- jobs
- parents
- social

bilingual
non-bilingual
RQ 2.1: Motivation profiles by school type

Levels of motivation

**Higher for bilingual students**
- Global communication ($p<.001$)
- Personal language goals ($p<.001$)
- Self-confidence in language learning ($p<.001$)
- Interest in language learning ($p<.001$)
- Level of effort ($p=.018$)

**Higher for non-bilingual students**
- Parental expectations ($p=.024$)
- Social expectations ($p<.001$)

**No significant difference**
- Future opportunities ($p=.069$)
RQ 2.2: Motivation relationships by school type

Relationship between motivations

Stronger relationship for the non-bilingual group between ‘parental expectations’ and ‘global communication’

- Bilingual group: correlation = .403
- Non-bilingual group: correlation = .503

Non-significant difference for all other relationships

RQ 2.1/2.2 Interpretation:
Bilingual group have internalised the value of learning English to a greater extent
RQ3: MOTIVATION AND PROFICIENCY
RQ 3: Motivation and proficiency

• Large amount of variation in overall proficiency scores not reflected in motivation scales:
  • Input and output – Cognitive differences – Personality

![Graphs showing English self confidence and Social expectations](image-url)
## RQ 3: Motivation and proficiency

<table>
<thead>
<tr>
<th>Motivational variables</th>
<th>Bilingual</th>
<th>Non-bilingual</th>
<th>Group comparison (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>English self-confidence</td>
<td></td>
<td></td>
<td>.298</td>
</tr>
<tr>
<td>Personal language goals</td>
<td></td>
<td></td>
<td>.226</td>
</tr>
<tr>
<td>Interest in language learning</td>
<td></td>
<td></td>
<td>.380</td>
</tr>
<tr>
<td>Future opportunities</td>
<td>.346**</td>
<td>.446**</td>
<td><strong>.023</strong></td>
</tr>
<tr>
<td>Global communication</td>
<td>.389**</td>
<td>.376**</td>
<td>.772</td>
</tr>
<tr>
<td>Level of effort</td>
<td>.304**</td>
<td>.299**</td>
<td>.912</td>
</tr>
<tr>
<td>Parental expectations</td>
<td>.166**</td>
<td>.280**</td>
<td>.056</td>
</tr>
<tr>
<td>Social expectations</td>
<td>.030</td>
<td>.138**</td>
<td><strong>.037</strong></td>
</tr>
</tbody>
</table>

** personal motives have strongest relationship with proficiency levels

** significant correlation with proficiency
RQ4: MOTIVATION PROFILES BY SCHOOL TYPE AND SES
RQ4: SES motivation by school type

No significant differences at bilingual schools:
- Global communication goals
- Interest in language learning
- Effort investment
RQ4: SES motivation by school type

Significant differences at non-bilingual schools:
- Global communication goals
- Interest in language learning
- BUT NO differences between high SES at non-bilingual schools and low SES at bilingual
RQ4: SES motivation by school type

Significant differences at bilingual schools:
- Personal language goals
- English self-confidence
- Future opportunities
RQ4: SES motivation by school type

**Cross comparison: SES and schooling type**

*Significant* differences at non-bilingual schools:
- Personal language goals
- English self-confidence
- Future opportunities
RQ4: SES motivation by school type

Cross comparison: SES and schooling type

RQ 4 Interpretation:
Bilingual schools bring low SES group motivation levels to that of high SES groups at non-bilingual schools

ONE EXCEPTION: perception of future opportunities ("instrumentality")
Summary

• RQ1: Higher levels of English language proficiency amongst bilingual school students
• RQ2: Bilingual school students have greater level of internalised motives to learn English
• RQ3: Personal motivational variables have a closer relationship with proficiency levels at both school types
• RQ 4: Bilingual schools bring low SES group motivation levels to that of high SES groups at non-bilingual schools, except perception of future opportunities
Discussion and future directions

• Language learning achievement is simply a snapshot

• Language learning motivation indicates values that will inform ongoing engagement with the English language amongst young people

• Madrid MoE were able to explore influence of bilingual schooling in terms of English language learning to a richer degree than straightforward proficiency statistics.

• Future research: Qualitative investigation comparing teacher attitudes across school types

• Further analysis: latent profile analysis to provide more sophisticated insight into the relationship between motivation and proficiency
Thank you!

Any questions?

karen.dunn@britishcouncil.org
https://www.britishcouncil.org/exam/aptis/research/english-impact