
This is the author accepted manuscript (AAM) of an article published in Language Learning Journal.

The definitive published version is available online:
https://www.tandfonline.com/doi/full/10.1080/09571736.2016.1196384

http://eprints.gla.ac.uk/197054/
People can be smarter with two languages':
Changing Anglophone students’ attitudes to language learning through teaching linguistics

<table>
<thead>
<tr>
<th>Journal:</th>
<th>The Language Learning Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuscript ID</td>
<td>RLLJ-2015-0103.R1</td>
</tr>
<tr>
<td>Manuscript Type:</td>
<td>Original Paper</td>
</tr>
<tr>
<td>Keywords:</td>
<td>language learner motivation, metalinguistic knowledge, intervention study, Anglophone language learner, anglocentrism</td>
</tr>
</tbody>
</table>

URL: http://mc.manuscriptcentral.com/rllj  Email: N.Pachler@ioe.ac.uk
People can be smarter with two languages’: changing anglophone students’ attitudes to language learning through language awareness raising.

With English as an undisputed global lingua franca, there is long-standing concern in anglophone countries over the lack of interest in language learning. In the UK, significant changes in language education policy, a mentality of insularity and the global spread of English have all contributed to a drop in language learning uptake beyond the compulsory stage. While the UK has seen many initiatives aiming to foster language learning, no interventions so far have aimed to change learner attitudes by raising students’ language awareness of a) the spread of English globally b) cognitive benefits of multilingualism, and the ubiquity of multilingualism, globally and in the UK. A teaching intervention designed for this purpose was delivered to 97 students aged 12-13 in three different state schools in England and Scotland. The effect of the intervention was measured by a pre- and post- questionnaire, with questions closely tailored to the content of the intervention. In addition, qualitative student feedback was gathered after the intervention. Results show significant changes, across the cohort, in two out of three constructs studied, and effects on students’ attitude towards language learning. Thus, we conclude that raising anglophone students’ awareness of language through raising awareness of cognitive benefits of multilingualism, and the spread of English globally, has the potential to change the attitudes of learners otherwise not interested in language learning.
Introduction

In his book in 1998, David Crystal argued that global spread of English might lead to native English speakers lacking interest in learning other languages. The status of English as the world’s most preferred lingua franca has irrevocably changed the global language learning landscape in favour of English (see Kramsch 2014). The ‘hyper-utilitarian’ demand for English in non-English dominant countries contrasts with low utilitarian demand for language learning in English-dominant countries (Lo Bianco 2014: 317). English speaking countries are experiencing a decline in language learning (Lanvers 2015; Lo Bianco 2014) despite considerable evidence for the societal and economic benefits of improving language skills in anglophone countries (for the UK, see e.g. Tinsley and Board 2013; for the US, e.g. Wiley 2007; for Australia, e.g. McCarty, Romero and Zepeda 2006; for New Zealand, Johnson 2015).

In the UK, politicians, academics, educators and the public media have all expressed concerns over the sharp decline in language learning over the last decades (e.g. British Academy 2013; Coleman 2009; Coleman et al. 2007; Lanvers 2011; Lanvers and Coleman 2013; Nuffield Foundation 2000). Erosion of language education policy contributes to this decline: for instance, in England, language learning beyond the age of 14 was made optional in 2004 (after a brief period compulsory language learning for all up to age 16, from 1988 to 2004), leading to immediate strong decline of language learning at all post-compulsory stages (Board & Tinsley 2015). The precise effects of current education policy changes on language-take up, notably the two school performance measures Progress 8 (which does not include a compulsory MFL qualification) and the Ebacc (which does include a compulsory MFL qualification), are yet to be seen.

There has been no shortage of evidence for the economic need to improve language tuition in the UK (Fisher 2013; Foreman-Peck 2007), nor of Government-funded reports (e.g. Tinsley and Board 2013), and investigations (Nuffield Foundation 2000; Languages Review 2007) into the UK language crisis. Furthermore, there has been no lack of initiatives to promote language learning (Lanvers 2011), prominent among these being the university consortium-based Routes into Languages project, delivering a range of age-tailored activities to (mostly) secondary school students in order to enthuse them to study languages at post-compulsory, and in particular tertiary, levels. Judging by teacher feedback, the diverse Routes into Languages programmes have, since their launch in 2006, been enjoyed by many UK secondary students, as well as university language degree students in their role as language learning ambassadors. So far, the (few) studies to evaluate the effect of these interventions suggest that they improve student attitudes towards languages (Canning and Gallagher-Brett 2010; McCall 2011).

---

1 In England, the main performance measure for all secondary schools will be Progress 8 from September 2016. This measures individual students’ progress in eight subjects, from leaving primary school to leaving school. The percentage of students in a secondary school achieving the Ebacc is an ancillary school performance indicator. The Ebacc is a qualification awarded age 16 to students who achieve good grades in five core subjects, including a MFL. See [https://www.gov.uk/government/publications/progress-8-school-performance-measure](https://www.gov.uk/government/publications/progress-8-school-performance-measure) and [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/285990/P8_factsheet.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/285990/P8_factsheet.pdf)
Governmental reports on the language crisis tend to emphasise utilitarian needs for languages, such as language skills and qualifications to improve employability and educational trajectories, and the need for language skills in business and commerce (see above). Such rationales harbour potential drawbacks in particular for the intended target group of adolescent anglophone speakers: for students of this age, some instrumental benefits might seem distant or irrelevant; secondly, such rationales do not address the danger that competent anglophone speakers might consider it increasingly unnecessary to develop language skills for practical communicative purposes, given the ever-growing numbers of fluent L2 English speakers. In short, of all possible rationales for language learning, an emphasis on instrumental benefits is the most vulnerable rationale to the force of the global spread of English, tempting the response that ‘English is enough’.

Meanwhile, the lack of enthusiasm for language learning among anglophones suggests that anglo-centric and ‘English is enough’ attitudes contribute to the language crisis. No intervention study so far has attempted to design and measure the effects of a pedagogic intervention aiming at anglophone language learners which foregrounds rather than ignores the global status of English. This intervention study is unique in that it seeks to raise anglophone students’ awareness a) the spread of English globally b) cognitive benefits of multilingualism, and the ubiquity of multilingualism, globally and in the UK. It contrasts to other intervention studies seeking to motivate anglophone students to learn other languages by directly addressing the global spread of English.

This article reports on action research evaluating a teaching pack comprised of two lessons, focusing on, respectively, global language trends and the cognitive effects of language learning to 97 learners of foreign languages in three state secondary schools. Two intervention lessons focused, respectively, on the themes of global language trends and the cognitive benefits of language learning. The aim was to provide alternative perspectives on the ubiquity of multilingualism, and world languages other than English, to counter, for instance, the notion that English is the only world language or lingua franca. In order to evaluate the impact of the intervention, a questionnaire, reflecting the content of the intervention was administered before and after delivery.

**Literature review**

This section discusses the existing body of research on the UK language crisis and language learning motivation, including intervention studies to improve motivation and intervention studies using linguistic knowledge to improve learner attitudes to language learning.

British public attitudes towards languages other than English, and multilingualism generally, have been described negatively by some, for instance as ‘chauvinistic’ (Gieve and Norton 2007), ‘xenophobic’, ‘monolingualist’ and ‘elitist’ (Coleman 2011), with a ‘disdain for linguistic “otherness”’ (Pachler 2007: 2), in the context of Britain’s insular attitude towards the rest of Europe (Coleman 2009). These attitudes contrast with the UK’s actual multilingualism: an estimated 17.5% of primary and 12.9% of secondary school children speak mother tongues other than English (Department for Education 2011), the most common being Polish, the
languages of the Indian subcontinent, Chinese and Arabic (Tinsley and Board 2013). Thus, the UK, like the US, lives in what Demont-Heinrich (2007: 114) has called ‘the paradox of tremendous linguistic diversity combined with widespread and pronounced English monolingualism’ while language skills developed at school remain among the weakest of all EU countries (European Commission 2012). The UK has strong geographical clusters of multilingualism, notably around urban agglomerations, while more rural areas, such as the North East of England, remain strongly white and monolingual (Language Trends 2009). In this sense, students growing up in largely monolingual and monocultural UK environments might be considered doubly deprived of a multilingual education; first by virtue of a national ‘monolinguist’ culture and low educational priority given to language learning, and secondly by lacking opportunities to observe multilingual practices in their own lives.

Furthermore, the decline in language learning in the UK over the last two decades has led to strong elitist trends at both secondary and tertiary levels (Coleman et al. 2007; Gayton 2010, 2013; Lanvers, in press; Tinsely and Board 2013), with predominantly students from advantaged backgrounds opting to study languages once they become optional rather than compulsory. At school level, only academically high-achieving and private schools, both with above average affluent socio-economic status (SES) intake, still make modern language study compulsory for all students up to age 16 (Board and Tinsley 2014).

Unsurprisingly, the main body of international research on language learner motivation has concentrated on learners of the most frequently learned language, English (see Boo et al. 2015). However, studies focusing on post-compulsory anglophone language learners seem to suggest that these learners reject their negatively perceived in-group anglophone identity (as poor language learners): the desire to distance themselves from this in-group acts as one motivator for language learning (Lanvers 2012; Oakes 2013; Taylor 2013; Thompson and Vásquez 2015).

Within the large body of language learning literature discussing student motivation and attitude, intervention studies tend to focus on teaching strategies to influence student attitude (and, to a lesser extent, motivation) (e.g. Cheng and Dörnyei 2007; Guilloteaux and Dörnyei 2008). By now, a range of teaching strategies (such as permitting frequent speaking, not correcting every mistake, encouraging spontaneity and creativity, giving students a sense of progress in their learning, rewarding efforts, including authentic materials, creating a friendly classroom atmosphere, being humorous) have been shown to be beneficial for language learning students (e.g. Guilloteaux 2013; Moskovsky et al. 2013; Papi and Abdollahzadeh 2012).

Intervention studies tend to focus on manipulating teacher behaviour towards using these strategies, or including motivating teaching tools such as games (e.g. Connolly et al. 2011) or computer-facilitated language learning (Zhao 2013). As with motivational studies, most studies are undertaken with learners of English, not anglophones learning other languages.

Empirical studies investigating the specific motivational challenges for anglophones learning other languages have shown students at post-compulsory level to be typically highly intrinsically motivated, for instance valuing the activity of learning of its own sake (e.g. Coleman and Furnborough 2010; Lanvers 2012), appreciating the sense of making progress in their learning (Campbell and Storch...
For Peer Review Only

2011; Coleman et. al. 2007; Murphy 2011), and wanting to counter the negatively perceived image of English speakers as poor language learners (see above). Thus, anglophone voluntary language learners seem to display a highly positive attitude to their learning. However, continuing language learning after school is hampered by institutional barriers in many anglophone countries: for instance, as students enter university, their desire to continue language study alongside other subjects is curtailed through lack of options (for New Zealand, see Oshima and Harvey 2013; for the UK and South Africa, see Balfour 2007).

In contrast, and of particular reference to this study, anglophone learners obliged to study languages at secondary school, in particular at age 12 - 16, have typically been difficult to motivate (e.g. Coleman et al. 2007; Graham 2006; Taylor and Marsden 2014; Williams et al. 2002). In UK schooling contexts, students often report a lack of enjoyment of the subject (Gayton 2013; Graham 2003). UK studies looking at secondary school compulsory language learners suggest that students aged around 12-14 (e.g. Gayton 2013; Williams et al. 2002) have the poorest motivation.

Learner beliefs about language learning, about the language they study (often very different from those of their teachers: see Brown 2009), or its relation to their first language, can all influence motivation (Graham 2004, 2006; Hsieh and Schallert 2008; Kormos, Kiddle and Csizér 2011). Moreover, learner beliefs about, for instance, the ease, ubiquity, methods and strategies of learning are also known to influence learner success (for an overview, see Barcelos 2003). In the context of a UK environment with a tendency towards anglocentrism, students might be inclined to view multilingualism as either difficult to achieve, and/or uncommon, especially if they encounter few multilinguals as ‘role models’ in their daily lives. In this respect, it is noticeable that a) English native speakers are known to overestimate the spread of English (Schulzke 2014), and b) that UK school students tend to have low knowledge about world languages in general (Guardian 2013; Lanvers 2015). As such beliefs may fostering anglocentrism, such as the ‘English is enough’ fallacy, the intervention specifically aims to influence student beliefs about English in the world.

Furthermore, UK school students studying languages are known to have poor self efficacy (the belief to succeed in a specific situation, or fulfil a specific task: Hurd 2006) (e.g. Graham 2003), hampering both effort and achievement (e.g. Busse 2013; Williams et al. 2002); even at post compulsory stage, few anglophone school students have good confidence in their language learning ability (Graham 2006).

Regarding school MFL learning, many studies report on students’ dislike of languages as a school subject, perceiving them as hard, irrelevant, and/or boring (Board and Tinsley 2014; Guardian 2014; Taylor and Marsden 2014; Williams et al. 2002). European comparative studies show that British school students show poorest motivation for language learning, with students across Europe favoring English as their foreign language, unsurprisingly (Eurostat 2012). The harsh marking regime in public examinations in England compared to other subjects, and common policies in many English schools of entering only more academically able students to study languages up to GCSE, all contribute to an image of the subject among learners in England as only for ‘brainy’ or ‘nerdy’ students (Bartram 2006; Graham et al. 2012).
Regarding demographic differences in learner attitude towards languages, there is evidence that students perceive languages as a ‘gendered’ subject, with boys having a more negative attitude towards, and lower motivation to learn, languages (in the UK, see Davies 2004; Gayton 2013; Williams et al. 2002; in Canada, see Kissau 2006; in Australia, see Carr and Pauwels 2006; in Sweden, see Henry 2009). Therefore, the present study compares female and male students’ attitudes to languages, both before and after the intervention. Furthermore, bilinguals learning a third language are known to learn subsequent languages with greater ease than monolinguals (Cenoz 2013); this study also tests for differences in attitude between English L1 language learners and those students declaring a different first language.

Using linguistic knowledge in the contemporary language classroom usually involves equipping students with language descriptors and analytical frameworks. The 1980 language awareness movement attempted to introduce wider aspects of language awareness into MFL classrooms, aiming to integrate English and MFL teaching in the hope for mutual cross-cultural enrichment (Hawkins 1992, 1999; Svalberg 2007), a hope that remained largely unrealised. More recent projects such as Discovering Languages (Barton et al. 2004) or the European Evlang programme (Candelier 2008) have successfully delivered language awareness programmes with a diversity of aims, such as reducing racial prejudice (Young and Helot 2003), raising critical language awareness, teaching meta-language terminology, or raising the profile of MFLs at primary school level.

Generally, intervention studies that aim to teach explicit metalinguistic knowledge tend to be delivered at primary, not secondary level. Furthermore, metalinguistic knowledge of the kind proposed here (e.g. the interplay between globalisation and linguistic changes, the effects of language learning on the brain) have tended not feature in such interventions, who tend to teach e.g. grammatical or stylistic meta-language (for an overview, see Jessner 2008; Svalberg 2007). While recent reports on the UK language crisis (e.g. Board at Tinsley, 2014, 2015; Tinsley & Han, 2012) have been successful in emphasizing the functional and instrumental benefits of language learning, they have rarely foregrounded or even acknowledged the global status of English.

Recently, Taylor and Marsden (2014) designed a study to test which of two types of intervention was most effective in improving students’ perception of the relevance of languages as a school subject: either a panel discussion with external speakers (all past language learners, not academics or language experts) talking about their experiences and (lasting) benefits of language learning, or a lesson with an external tutor. Results revealed that only those students who participated in the panel discussion improved their attitude and perception of the relevance of languages, suggesting some ‘positive role model’ effect on learner attitude. The panel discussion, which worked especially well for boys, emphasised benefits such as employability, getting prestigious qualifications, travelling, with few interventions tapping into ideal dimensions of motivation, such as the fun of learning, cognitive benefits, or curiosity for other cultures and languages.

Interventions aiming to change the (daily) learner experience are much constrained by the fact that any participating school needs to combine any innovation while continuing teaching within the constraints dictated by policy (e.g teaching to
exams). Unsurprisingly, few studies of this nature exist. One with exception is Chambers (2005), who investigated the effects of single–sex teaching of foreign languages.

Thus, existing studies suggest that specific intervention can change language learner motivation and attitude. Furthermore, studies researching why voluntary anglophones are motivated to learn other languages show that their motivation is linked to (often negative) perceptions of the global spread ubiquity of English. However, very few studies have aimed to influence learner motivation or attitude via raising awareness of such linguistic issues. To our knowledge, there are two initiatives that most closely match the nature of the current study, East (2009) and Kubota (2001). East (2009; see also 2008a and b) delivered a programme in New Zealand designed to increase knowledge and awareness of world languages among English L1 undergraduate students, demonstrating that this intervention changed students’ attitude towards the global status of English in the world and multilingualism. Similarly, Kubota’s intervention study with US secondary students, focusing on World Englishes, had the aim of “[raising] students’ awareness of the global spread of English and its implications” (2001: 47). Kubota reported improvement in students’ awareness of the complexity of language learning, but no significant change in other student beliefs, such as opinions of personal characteristics of speakers of ‘non-standard’ English varieties. Kubota concluded that such interventions should target younger participants in compulsory education than her study permitted (2001: 60). The present study does however target young compulsory secondary language learners.

Negative perceptions of languages as a school subject may stem, to a large extent, from (daily) learner experience at school level. Therefore, single interventions cannot hope to influence the language learner experience level greatly. However, as such perceptions are known to be closely related to both perceptions of relevance of the subject and self efficacy, this study’s intervention might indirectly affect learner images of the subject. For these reasons, the study also tests for differences in perceptions of the subject languages as ‘brainy’, ‘nerdy’, or ‘academic’. Furthermore, self efficacy has been identified as a particular problem for language learners in the UK (see above). Therefore, the intervention pack includes teaching objectives aimed at influencing language learning beliefs and self efficacy, in particular targeting students growing up in relatively monolingual settings (rather than known measurements of language learner efficacy used in above cited studies). Moreover, as prior language learning experience is known to influence subsequent language learning, the study will also test for differences between students with English-only versus bilingual background.

To conclude, current research evidence suggests that while anglophones learning other languages are often poorly motivated (and boys more so than girls), interventions can have positive motivational effects. Intervention programmes which focus primarily on utilitarian benefits of MFL harbour three problems for the intended target groups of English speaking adolescents: they risk bypassing interests and concerns of students of this age, risk an (inadvertent) social and educational divide in that only the most ambitious students, and students from more advantaged SES (socio-economic status) backgrounds, might picture themselves in a professional future where high language proficiencies are needed, and thirdly, these arguments are
most vulnerable to the forces of the global spread of English. Nonetheless, the only study thematising multilingualism in order to change language attitudes in English L1 speakers (East 2009) has done so successfully.

Against this background, an intervention study was undertaken in three schools in the UK, with the aim of improving students’ knowledge about world languages, such as the spread but also limits to the global status of English, other current and future world languages, and cognitive effects of multilingualism. The intervention specifically foregrounds rather than downplays critical engagement with the global spread of English but also discusses other lingua francas in the world, aiming to raise students’ wider awareness of multilingualism (Hultgren 2011).

All teaching objectives were chosen to appeal to students of both gender and different socio-economic backgrounds. The content was written by three linguistic researchers (the authors of this paper), two specialising in second language acquisition, one in world languages. Teaching formats included graphs about global languages, research reports about cognitive effects of multilingualism, You Tube clips, classroom and small group discussions, and a ‘fun’ quiz for small groups, designed to engage students actively in a range of small and large group activities. The accompanying pre-post questionnaire tests attitudes towards multilingualism, self efficacy, the image of languages as school subjects, as well as differences between genders, and those between students with English-only and students with another home language.

A further pedagogical aim of the current project was to provide language teachers in the UK with a tool to raise multilingual awareness in secondary students, a goal inspired by May (2014), whose New Zealand based-LEAP (Language Enhancing the Achievement of Pasifica) project enables teachers to deliver programmes supporting additive bilingualism and students’ awareness of multilingualism. In this sense, the project responds to Tochon’s (2009) urge to include teaching about world languages in the language classroom, and promote teaching a greater range of languages in anglophone countries.

The resulting intervention pack (named SPEAKGLOBAL) is now available for any UK teacher to download and deliver themselves from the Routes into Languages website (https://www.routesintolanguages.ac.uk/resources/library/speakglobal-resource) and has been downloaded, at the time of writing, over 500 times.

**Research questions**

1. Do secondary school language learners’ attitudes towards
   a. valuing multilingualism
   b. valuing cognitive effects of language learning (neurological processes effects of language learning on the brain, brain plasticity in language learning, short: cognitive effects)
   c. the image of the school subject MFL differ before and after delivery of the teaching pack?

2. Do attitudes towards the above three constructs differ between
a. boys and girls
b. students with first language English, and those with another first language?

3. Conceptually, what are the advantages of teaching about a) cognitive effects of language learning and b) the global spread of English to anglophone language learners in general?

Method

Participants

Four classes participated, three in two secondary schools in the North East of England, and one in Scotland, with different characteristics so as to enable a broad comparison. In each school, the program was administered before students select GCSE (or equivalent) options.

Insert Table 1: Data somewhere here

Instrument: Teaching pack

Participation of three schools was secured. School teaching staff and other professional staff (Routes into Languages representative, Association for Language Learning (professional body of language teachers) representative) were involved in several ways in the creation of the teaching material (commented initial idea and two draft versions. A focus group of students also commented on a draft version, and completed a pilot questionnaire.

The following three slides are taken from the teaching material as an illustration of some of the content. They support, respectively, learning and discussions of world languages, national multilingualism and cognitive effects of bilingualism. The first slide shows projected changes in the spread of world languages, stimulating discussions (small group, then whole class) on how these trends might have developed by the time students are 60 years old. The next slide gives an example of a quiz’ style question, and the third a still from a one-minute You Tube clip watched in class, explaining the effects of infants learning languages on brain development.

Insert Figure 1 The changing percentage of the world’s population speaking English, Spanish, Hindi/Urdu and Arabic as their first language somewhere here

Insert Figure 2 Quiz Question 3 somewhere here

Insert Figure 3 Still from You Tube clip somewhere here

Instrument: Questionnaire

A questionnaire with 18 items and dealing with three constructs, covering a) attitudes towards multilingualism and the global status of English b) self efficacy/cognitive attainability c) image of languages (both as a school subject, and of language learning generally) was piloted. The first two constructs closely match the content of the intervention pack; the third construct measuring the image of languages as a school
subject was introduced to take account of the relative unpopularity of languages as a school subject. An analysis of inter-item reliability (Cronbach $\alpha$) led to discarding three items. Responses on a five-item Likert scale (disagree strongly, disagree, don’t know, agree, agree strongly) were invited. Care was taken to mix positively worded and negatively worded items; the latter were reversed when entered into the statistics spreadsheet. The post-intervention questionnaire also included a section for open-ended feedback. The final questionnaire (see Appendix B) included demographic background information (gender, age, school, first language), an open feedback section and 15 Likert scale items relating to the following three constructs:

- *valuing multilingualism* (Cronbach Alpha 0.759) (7 items)
- *cognitive effects* (Cronbach Alpha 0.745) (4 items)
- *image* (of the school subject, of school language learning) (Cronbach Alpha .672) (4 items)

**Procedures**

Ethical consent was sought from all participating academic institutions, and consent forms were sent to all participants. The academics writing the intervention delivered the teaching themselves in all three schools. The following timetable was adopted in each school, allowing one week delay between intervention and post-test:

Insert Table 2 *Timetable* somewhere here

Quantitative data was entered into SPSS. To answer questions 1, Paired Sample $t$ tests were used. To answer question 2, Independent Sample $t$ tests were used. The questionnaire also gathered information about students’ gender and first language; differences for gender and language background were analysed using Independent Sample $t$ tests. Cohen’s $d$ effect sizes were calculated; effects up to 0.2 were interpreted as medium, 0.5 as medium, and >0.8 as large.

To answer research question 3, qualitative data, invited after the intervention through the open feedback section of the questionnaire, was analysed. Using Grounded Theory, this qualitative data was analysed and coded, in a two-step process, by two researchers: in a first stage, the researchers coded and analysed this data independently. In a second stage, any coding differences were resolved by mutual consent. The interpretation was aided by both the quantitative results from this study and past research evidence.

**Results**

Research question 1: Did students’ attitudes towards

a. *valuing multilingualism*

b. *cognitive effects*

c. *the image of the school subject MFL*

differ before and after delivery of the teaching pack?

Insert Table 3: Descriptive results somewhere here

In *valuing multilingualism*, there was there was a significant before/after difference (before: mean 3.58, SD 4.51, after: mean 3.87, SD 5.19) [$t(171)=2.003$, $p=.049$],
Cohen’s $d=0.304$. In cognitive effects, there was a significant before/after difference (before: mean 3.25, SD 4.08, after: mean 3.58, SD 4.14) [$t(171)=2.584$, $p=.011$]. Cohen’s $d=0.386$, thus a somewhat larger effect size than for valuing multilingualism. In image of languages as a subject, there was no significant before/after difference (before: mean 3.63, SD 3.14, after: mean 3.75, SD 3.30) [$t(180)=.981$, $p=.328$]. Thus, there was a significant change in attitude that relates to two teaching units about (both UK and global) multilingualism, and the ubiquity, relative ease and cognitive benefits of language learning. However, the image of languages did not change to significant levels. The intervention itself did not address the perception of languages as a school subject, but it was postulated above that the intervention might indirectly influence the image of the subject. However, no such effect was observed.

**Research question 2: Did attitudes towards the above three constructs differ between**

a. boys and girls

b. students with first language English, and those with another first language?

Regarding gender, before the intervention, there were no significant difference in any of the three constructs (for cognitive effects: means for girls 3.23, SD 4.64, and boys 3.31, SD 3.6, [$t(91)=.610$, $p=.611$], for multilingualism: means for girls 3.59, SD 4.03 and boys 3.44, SD 4.59, [$t(83)=1.134$, $p=.260$]), for image of languages: means for girls 3.65, SD 2.21 and boys 3.61, SD 2.29, [$t(92)=2.35$, $p=.015$]), nor after the intervention (for cognitive effects: means for girls 3.56, SD 4.19 and boys 3.53, SD 4.15 [$t(80)=.173$, $p=.863$], for multilingualism: means for girls 3.82, SD 4.29 and boys 3.59, SD 5.58 [$t(83)=1.134$, $p=.260$]), for image of languages: means for girls 3.75, SD 2.29 and boys 3.71, SD 2.77, [$t(80)=.176$, $p=.861$]).

Six students self-professed to have a different language to English as L1. Given the low number, results have to be treated cautiously; however, before the intervention, students with another first language valued cognitive effects significantly more than English L1 students (English first language: mean 3.20, SD 4.18, other first language: mean 3.61, SD 4.16, [9t(90)=2.934, $p>.000$], with small to medium effect size of Cohen’s $d=0.293$, and slightly higher mean scores, but not to statistical significance, in image of the subject languages (English first language: mean 3.61, SD 2.24, other first language: mean 3.91, SD 1.72 [$t(91)=.923$, $p=.359$], and multilingualism (English first language: mean 3.49, SD 4.36, other first language: mean 3.77, SD 2.30, [$t(82)=.134$, $p=.260$]). After the intervention, students with another language did again score significantly higher in cognitive effects (English first language: mean 3.49, SD 4.22, other first language: mean 4.08, SD 1.87 [$t(79)=1.762$, $p=.003$]), with a very high effect size of Cohen’s $d=1.00$. The difference regarding the image of languages as a school subject became significant with a high effect size (English first language: mean 2.77, SD 2.50, other first language: mean 3.47, SD 1.33, [$t(78)=2.495$, $p=.002$]), Cohen’s $d=0.855$, while differences in valuing multilingualism remained insignificant (means 3.68, SD 5.39 for English first language, mean 3.95, SD 2.80 for other fist language, [$t(78)=.854$, $p=.396$]).

Thus, despite a tendency for girls to score higher, significant gender differences reported in some literature were not replicated. The results concerning
students with different first languages suggest that even before the intervention, students with multilingual backgrounds have higher self efficacy and value languages as a school subject more, and the much increased differences (effect sizes) between multilinguals and monolinguals after the intervention shows that the latter group was more responsive to the intervention.

**Research question 3:** Conceptually, what are the advantages of teaching about a) cognitive advantages of multilingualism and b) the global spread of English to anglophone language learners in general?

The quantitative data suggests a learner effect of the teaching pack for both genders, and for both constructs relating to the core teaching content. In addition, students’ qualitative feedback was invited, permitting further insights into student experiences of the pack. 50% of participants left some form of comment. Two researchers grouped these comments, first loosely into positive and negative, and then into the following six themes: *self efficacy, fun, interaction, novelty, rousing curiosity, patronising effects*. All discrepancies were resolved by negotiation. The following section cites a representative sample for each theme (c. 40% of comments).

This data is considered especially important given the novelty aspect of teaching this type of (meta) linguistic knowledge to secondary students. As mentioned above, the teaching pack deliberately included ‘fun’ activities such as the pub quiz and short *YouTube* clips which were appreciated:

*I loved the lessons that we were taught we had an insight into psychology and language. They were really fun!* (female, school 2)

*I learned a lot about bilinguals and people who speak only 1 language. Also I thought the lesson as fun and very useful.* (female, school 2)

*Really fun and enjoyable - thank you!* (male, school 2)

Furthermore, students seemed to appreciate the sense of learning something totally different:

*We learned that there are hundreds of languages and our quiz team won!* (female, school 2)

*I learned a lot about bilinguals and people who speak only one language. Also I thought the lesson was fun and very useful.* (female, school 2)

*I didn’t know any of the things that you taught be before and I was surprised at what I found out. I learned a lot in the few lessons that we have had. Thanks a lot!* (male, school 2)

*I found the last session interesting. I learned how the brain works.* (female, school 3)
I enjoyed the 2 lessons because we got to learn something new and interesting especially finding out about bilingual babies. (female, school 2)

The variability of activities and interaction was especially appreciated:

Good interactive lesson. (male, school 1)

The languages were very interesting and I learned lots of new things about languages. I particularly enjoyed the bit where you have to shout out colours[ sic] and would love to do more interactive things like this. (female, school 2)

Students’ appetite for languages had clearly been whetted:

They were fun and I learned a lot. If we do this again I would like to speak different languages which I don’t already speak. (female, school 2)

I enjoyed the lessons and learned many new facts: Papua New Guinea has over 400 languages and Arabic is a main language in the world. (female, school 2)

I think you should interact more with students but apart from that the lessons were amazing. (female, school 1)

However, the lessons did not impress all; three students (all male) expressed a general dislike for the subject languages:

I don’t like learning other languages. (male, school 3)

Overall, the qualitative data did reveal gender patterns in that female students clearly were more impressed with the lesson on cognitive effects, while male students liked facts about world languages.

Taken together with the quantitative results, these comments underline students’ general curiosity to learn about world languages and global language trends, which might explain the relative ease (with one intervention lesson only) of improving the attitude towards multilingualism. Some quotes also expose students’ general lack of knowledge about other languages, suggesting that students’ curiosity is easily roused precisely because the subject matter is so novel to them. In this context, we recall that two out of the three participating schools were set in areas with a very low ethnic mix (compared to UK average), exacerbating the challenge, for students living in such monolingual areas, of developing awareness of the ubiquity of multilingualism.

Secondly, the comments illuminate the students’ interest in learning about cognitive dimensions of language learning, in particular effects on the brain. Students

---

related their valuing of cognitive benefits to self efficacy, as demonstrated by these quotes:

They [the sessions] were very interesting and I learned a lot about languages. It was a great experience and inspired me to do better at languages. (female, school 2)

People can be smarter with two languages. (male, school 3)

Furthermore, there was evidence of a direct motivational effect of learning about other world languages:

There were very interesting figures [on trends in world languages] that interested me to want to learn more languages. (male, school 2)

Finally, the quotes from bilingual students clearly validate the positive effect on self efficacy and self esteem:

I learned a new word. I learned that I can call myself bilingual. (Tagalog, bilingual Philippine male, school 3)

The informative days were very helpful and taught me that as a bilingual I am less likely to receive dementia at an earlier age and that I am better at certain things than monolinguals. (L1 unknown, male, school 2)

However, the unexpected sting in the tail in this respect came in the form of (a minority of) students who felt indirectly insulted by being taught about cognitive effects of learning, fearing that this effect was beyond their reach, as (permanent?) monolinguals:

It sounded like they were saying bilingual people are more clever [sic] than monolingual ones. (male, school 1)

Fun but a bit insulting when they talked about bilinguals being smarter (male, school1)

It was quite patronising to be told bilingual people are better and more intelligent even though I will probably never be bilingual. (female, school 1)

After receiving this feedback, the teaching pack was altered to clarify that cognitive benefits of language learning and bilingualism are, theoretically, within reach of all language learners.

Lastly, the questionnaire also tapped into the image of languages as a subject, as a ‘hard’ or (too) ‘brainy’ thing to do. Although the intervention did not directly target this image, we hypothesised that both attitude changes regarding multilingualism and self efficacy might have an indirect effect on the image of
languages; however, these scores did not improve to significant level. There are (at least) three possible explanations, likely to be all valid to some extent: a) the image of MFL as a subject is less related to the other two dimensions tested than anticipated, b) the image of MFL as a subject is mainly generated from learner experiences at school level, thus only changes at that level could change it, c) the intervention did not contain specific content to address the image issue. Future research aiming to intervene in the complex interaction between self efficacy, language learning beliefs and image of the subject would prove a valuable asset for pedagogical interventions aiming to change the image of languages in particular.

Thus, teaching anglophones learning other languages about global language developments and psycholinguistics had significant effects: both quantitative and qualitative data show increased appreciation of multilingualism, suggesting an ‘eye opener’ effect of the intervention, and improved self efficacy towards language learning. Results suggest that improved knowledge about ubiquity of language learning and multilingualism encouraged a ‘can-do’ attitude and ‘normalisation’ of language learning; furthermore, student comments indicate a desire not to be left out of the global multilingual community. Irrespective of the intervention, students who were already bilingual (home/community language) had significantly higher self efficacy and positive image of the subject; in addition, their comments suggest a boost to their self esteem.

Conclusion
To conclude, results of this intervention suggest that teaching young language students about multilingualism in the world and cognitive effects of multilingualism can help changing anglophones’ attitudes towards languages. The content of the intervention is especially well suited to changing attitudes in anglophones for two reasons: a) It counters anglocentrism, and the ‘monolingual bubble’ that anglophones might live in, especially if they live in a relatively rural, monocultural and monolingual part of the UK. Two of the three participating schools were situated in such areas. b) It ‘nudges’ learners towards seeing both language learning and multilingualism as normal, which, in turn, can impact positively on self efficacy. Realizing that most of the world does learn and speak other languages can make this aim seem more tangible for oneself.

The content of this intervention deliberately moved away from utilitarian-type motivation arguments, as they hold some disadvantages for anglophones, in particular for the target age (teenagers). It also deliberately counters the fallacy of ‘English is enough’: by opening students’ eyes to trends in other world languages, and the ubiquity of multilingualism, it discourages a hegemonic attitude towards English. Furthermore, this content does not advantage students from advantaged socio-economic backgrounds who, are often more likely to envisage their future selves as holding a job where language skills might be required. Thus, on the basis of the effect of the current intervention, teaching content of this nature promises to improve attitudes towards language learning in anglophones anywhere in the world.

This intervention did not directly aim to change motivation. However, given the interdependency of learner beliefs, and attitudes and motivation (see above), attitudinal changes could result in changing motivation as well. Students’ keen interest in global linguistic trends, for instance (evidenced in both quantitative and
qualitative data), suggests that a strong desire to participate in some form of ‘global multilingual citizenship’ may be hindered by low language learner self efficacy. The outcome of this study suggests that even young anglophone language learners, irrespective of the content of this particular intervention, and possibly even irrespective of the issue of language learning, possess some form of ideal perception of themselves as citizens of the world. These findings suggest new avenues for future interventions to improve anglophones’ attitude to, and motivation for, language learning, focusing on motivational dimensions such as international posture and world citizenship.

As it stands, the current intervention has demonstrated the capacity to influence students’ attitudes towards languages, learning languages at compulsory level. Further research will need to test its applicability to other settings (e.g. post-compulsory), and in other anglophone countries.

Limitations
The long-term effects of this intervention, if any, are unknown. Further work is needed to assess how and to what extent student attitude to language learning might be changed medium- and long-term. To achieve this, it is conceivable that the type of linguistic knowledge used here is embedded into normal MFL lessons, to permit a ‘drip feed’ rather than one-off effect. The effect of such longitudinal interventions would ideally be accompanied by mixed-method research methods, in order to deepen our insights into student thinking on these matters. In this project, the authors, extremely grateful to the teachers in the three participating schools who gave up some teaching time, had exhausted the access feasible during normal teaching hours.

Furthermore, participants in this intervention mainly lived in relatively ‘white’ monolingual and monocultural surroundings. To test overall success of such interventions with anglophone language learners, further studies would need to deliver this or similar interventions to a range of different cohorts, and in a range of different contexts, for instance in ethnically very mixed urban schools.

Notes
1. More on Routes into Languages at https://www.routesintolanguages.ac.uk/
References


Hurd, S. 2006. Towards a better understanding of the dynamic role of the distance language learner: Learner perceptions of personality, motivation, roles, and approaches. *Distance Education* 27, no. 3: 303-329.


Lanvers, U. 2012. ‘The Danish speak so many languages it’s really embarrassing’. The impact of L1 English on adult language students' motivation. *Innovation in Language Learning and Teaching* 6, no. 2: 157-175.


May, S. 2014. Introducing the “multilingual turn”. In S. May (Ed.), The multilingual turn: Implications for SLA, TESOL and bilingual education (pp. 1-6). Routledge.


Tinsley, T. and K. Board. 2013. Languages for the future: Which languages the UK needs most and why. [accessed 8 February 2015 from ]
http://www.bing.com/search?q=Languages+for+the+Future&src=IE-SearchBox&FORM=IE8SRC]


Zhao, Y. 2013. Recent developments in technology and language learning: A literature review and meta-analysis. CALICO journal 21, no. 1: 7-27.

The questionnaire can be made available on request by contacting the first author.
<table>
<thead>
<tr>
<th>School 1</th>
<th>School 2</th>
<th>School 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>School characteristics</td>
<td>Converter Academy,</td>
<td>Comprehensive, inner</td>
</tr>
<tr>
<td></td>
<td>rural setting, North East England</td>
<td>city, Scotland</td>
</tr>
<tr>
<td>School language policy for age 14-16</td>
<td>Compulsory language</td>
<td>Compulsory for most students until the end of third year in</td>
</tr>
<tr>
<td></td>
<td>for most students,</td>
<td>secondary school</td>
</tr>
<tr>
<td></td>
<td>c.10% of cohort study two languages*</td>
<td></td>
</tr>
<tr>
<td>Percentage of students eligible for Free School Meals**</td>
<td>8.9%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Ability setting</td>
<td>middle-low</td>
<td>middle-high</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mixed</td>
</tr>
<tr>
<td>Year</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Average age</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>No.</td>
<td>44 (2 classes)</td>
<td>35</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>97</td>
</tr>
</tbody>
</table>

* School 1&2 had a policy of compulsory language study up to age 16+ for all but lowest ability students, at the time of data collection, but both have made languages optional for age 14+ since.
**2013 data from http://www.education.gov.uk/, retrieved 15 January 2015. The percentage of students in a school entitled to FSM is considered a reliable indicator of the schools’ intakes’ social mix, the higher the percentage, the lower the SES background.

Table 1: Data
Figure 1: The changing percentage of the world’s population speaking English, Spanish, Hindi/Urdu and Arabic as their first language.

From David Graddol, personal communication.
Quiz Question 3

☐ Which country in the world has the most languages?
A Switzerland
B Papua New Guinea
C Luxemburg

Figure 2 Quiz Question 3
Figure 3: Still from You Tube clip
From https://www.youtube.com/watch?v=rhpVd30AJaY
### Table 2: Timetable

<table>
<thead>
<tr>
<th>Time</th>
<th>Pre-questionnaire</th>
<th>Session 1: Multilingualism</th>
<th>Session 2: Cognitive advantages of bilingualism</th>
<th>Post questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 week before session 1</td>
<td>Week 1</td>
<td>Week 2</td>
<td>1 week after session 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>valuing multilingualism</td>
<td>valuing cognitive benefits</td>
<td>image of languages</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------</td>
<td>---------------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td><strong>before</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean</td>
<td>3.50</td>
<td>3.25</td>
<td>3.63</td>
<td></td>
</tr>
<tr>
<td>Std</td>
<td>0.634</td>
<td>.08</td>
<td>0.76</td>
<td></td>
</tr>
<tr>
<td><strong>after</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean</td>
<td>3.71</td>
<td>3.56</td>
<td>3.75</td>
<td></td>
</tr>
<tr>
<td>Std</td>
<td>0.738</td>
<td>0.789</td>
<td>0.815</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: *Frequencies*
Responses to referees: our comments are in blue

This is a very interesting study presenting action research on a pedagogic intervention designed to change Anglophone learners’ attitudes towards a) multilingualism; b) what is referred to as ‘the cognitive effects of language learning, and self efficacy’ and c) the image of languages. It suffers, however, from some lack of clarity in the writing-up. This needs to be addressed in order to convince readers of the value of both the intervention and its evaluation.

1. The exact rationale for the design of the intervention does not appear to be particularly clearly developed. The paper reviews ‘the UK language crisis’, refers throughout to a key phenomenon ‘Global English’ and looks at research on motivation. But how the various interesting points very explicitly add up to a rationale and framework for the proposed intervention is not clear. In particular, whatever it is that is referred to under the shorthand term ‘Global English’ needs to be more clearly delineated, and its role in the design of the intervention needs to be specified.

We have avoided the term ‘Global English’, which we agree is underspecified.
We have tried the rationale for the study in the following way:
We have clarified the relation between Global English, learner motivation and the language learning crisis.
We have clarified its originality which lies first and foremost in the nature of the intervention: raising students’ awareness of a) world languages other than English and the spread of English globally b) cognitive benefits of multilingualism, and the ubiquity of multilingualism, both globally and in the UK.
Furthermore, this study differs from many other initiatives especially Routes into Languages by measuring the effect on student attitude towards language learning.

2. In particular, the author seems to be contextualising their project design and the action research within Dornyei’s L2MSS. However, this is not explicitly stated, nor is a precise theoretical framework critically constructed. Greater explicitness is required in how the research reviewed in the ‘literature review’ section provides the rationale for the project.

We have removed the reference to this framework: this is first and foremost an intervention to change attitude rather than motivation. We have instead emphasized the novelty factor of using linguistic content. We have also re-emphasized (with references) the lack of consideration in L2 motivation research for anglophone language learners. The discussion of this small body of literature serves mainly to point out evidence of lack of fit of anglophone motivational profiles to the dominant theory.

3. One particular rationale given for focusing on facts and discussion about languages around the world (what the author refers to as ‘sociolinguistics’) and facts and discussion about language learning and its cognitive impact (‘psycholinguistics’) in the design of materials to promote UK MFL learner motivation is that previous motivational projects have focused on
‘instrumental and functional value of language learning’ and that such an approach is not effective. Both parts of this assertion need to be critically reviewed; firstly, what exactly is being claimed here, and secondly, on what evidence is this claim being made? Certainly in relation to projects coming under the Routes into Languages umbrella, my information is that projects have specifically avoided focusing on just the instrumental value of languages.

We agree with the reviewer that it is wrong to say that other intervention programmes focusing on the ‘instrumental and functional value of language learning’ have been ineffective. We have discarded this assertion: some existing Governmental reports emphasize this rationale, but not interventions, and not Routes into Languages.

Secondly, we have clarified that there are few interventions that are accompanied by research (see Taylor & Marsden 2014).

As stated above, the novelty focuses on the aspects multilingualism, spread of English, and the fact that we combine research and teaching.

4. In testing change of attitude, the author focuses on three ‘constructs’: these are ‘attitudes to multilingualism’, something referred to as ‘the cognitive effects of language learning, and self efficacy’ and c) the image of languages. Given that attitude constructs need to be very carefully specified in research, constructs b) and c) seem very loosely defined. What does the author/research mean by b)? Self efficacy is clearly a construct in its own right, with well-established instruments for testing it, but how does that relate to (attitudes to?) ‘cognitive effects of language learning’? Construct c) is in fact not ‘image of languages’ but ‘the image of language learning’, at least as far as we could gather from the questionnaire presented. The constructs need to be formulated with greater care.

We agree and have changed wordings in the following way:

*Image* was defined as image of the subject MFL as a school subject, i.e. school-specific but not specific to one language.

Construct b) was defined as *valuing cognitive effects of language learning*: this construct encompasses the following notions: appreciating neurological processes of language learning, brain plasticity in language learning, and neurological effects of language learning on the brain at different ages.

The qualitative comments from students (discussed towards the end) give supporting evidence to the fact that for some students, their newly gained knowledge about cognitive benefits of language learning influenced their personal learner beliefs positively (increased self efficacy). In this sense, it contains a (small) facet of self efficacy.

5. We would also ask the author to review very carefully their write-up of the conclusions of the evaluation study. We believe they are overstated and the data generated are not strong enough to suggest anything more than that this particular intervention seemed to be successful in changing some students’ attitudes when tested immediately after the intervention. The evaluation is limited by the absence of any delayed testing and obviously, far more evidence of this approach being successful in changing attitudes is required before general statements can be made.
We have made changes in the conclusion to this effect. We have included a new paragraph ‘Limitations’ in which we discuss major limitations such as the time restriction and lack of delayed post test.

The conclusion emphasizes instead the fact that since novel interventions of this nature have been proven to have an effect, this project offers pathways towards adopting interventions of this nature more generally in Anglophone learners: this study offers a template, not a final product. We have also deleted the reference to International Posture as we agree that evidence for this is tangible here: this is best researched with qualitative/mixed method research.

We have made detailed comments on a draft of the paper to highlight where we think the author needs to reconsider their phrasing and clarify their points.

We have acted upon each comment in the script.
In particular, we would like to highlight how we acted upon the following:

**Introduction.** End of second paragraph: regarding the introduction relating to Ebacc. The reviewer suggests that the Ebacc might have changed language uptake, and indicate a change in policy regarding languages.

The Ebacc introduction is indeed an interesting space to watch re MFL uptake. We have added a footnote that explains the current changes re performance measures in schools in England, with references. In particular, the new Progress 8 will outrank any Ebacc performance measure (see https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/497937/Progress-8-school-performance-measure.pdf). How individual schools respond to the conflicting demands to achieve optimal performance measures for their schools remains to be seen. In other words, while we may anticipate that Ebacc may increase MFL take-up up to age 16, we cannot be certain about the effect size.

**Literature review.** First paragraph. We have deleted the reference to Macaro at the very start of the literature review: the reviewer’s comment made it unclear if they preferred deleting this or expanding on Macaro’s view in more detail. We are happy to do the latter if preferred.

**Results section.** First paragraph: the comment was that it is not clear how much change has taken place, and that frequency table might be included.
We included a frequency table and calculated Cohen’s d effect sizes.

**Results: Research question 3: start:** the reviewer asked how representative the qualitative comments were.
We added a section giving more detail on the data, and explaining procedures of data analysis.

**Results: last paragraph:** the reviewer commented that the lack of delayed post test could be a serious drawback. We agree and explain in more detail, under LIMITATIONS, -why we could not do a delayed post-test
-what this study shows nonetheless
-what could be done in the long run to maintain such positive effects
-what further studies might follow this study

We believe this paper – and the intervention it presents – is of real interest to readers of The Language Learning Journal, but it requires greater explicitness and coherence in building up the arguments for the approach.