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Parrish, A. orcid.org/0000-0003-2458-172X and Bailey, E.G. (2024) Multilingualism & motivation in language classrooms in England. *Journal of Language, Identity, and Education*. ISSN 1534-8458

<https://doi.org/10.1080/15348458.2024.2328178>

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Multilingualism & motivation in language classrooms in England

Abstract

Although languages education in English schools has been in a difficult position since 2004, when the study of a language after the age of 14 was made optional, young people are (or can be) exposed to more languages than ever before as school populations in England become increasingly multilingual. As such, in this paper we draw on self-determination theory to measure student motivation and investigate links between motivation and students' multilingualism. Using items drawn from established self-determination theory instruments alongside the Ungspråk questionnaire developed by Haukås et al, we conducted an online questionnaire with 422 students between the ages of 11-16 from 16 schools in a largely monolingual area of England. Between group comparisons (Kruskal-Wallis and Mann-Whitney U tests) found that students with more multilingual linguistic lives had more autonomous motivation and more positive beliefs about languages, but that other characteristic such as gender and school year had little impact.

Key words

Language learning; motivation; self-determination theory; multilingualism; secondary school

Introduction

Languages education in English schools has been in a difficult position since 2004, when the study of a language after the age of 14 was made optional. There was an immediate decline of around 64,000 exam entries, or 12%, and numbers are now around half what they were at the peak of GCSE take-up. This means that this is more than a 'crisis', as it is often called (Lanvers and Coleman 2013; Tinsley and Board 2017a; 2017b), but in fact a steady pattern, which has consequences for the nation's skill level and economic prosperity (Tinsley 2013; Tinsley and Board 2017b).

Various suggestions have been put forward to account for the problems facing the subject, including the curriculum (Milton & Hopwood, 2022), the policy of optionality (Lanvers & Coleman, 2013) and severe grading in the subject (Graham 2002; Taylor and Marsden 2014; Thomson 2016b). A national policy initiative known as the English Baccalaureate, or EBacc, went some way to increasing take up, although this was not sustained. This policy requires schools to report on the number of students entered for, and who pass, GCSE exams in a suite of five subjects which include a language. However, a competing policy requiring them to report on students' progress in eight subjects which may or may not include a language (Progress 8) led to the EBacc measure being deprioritised (Hagger-Vaughan, 2020).

At the same time, young people are (or can be) exposed to more languages than ever before. School populations in England are increasingly multilingual (DfE, 2022) and, outside the school gates, the internet (including social media (Greenhow & Askari, 2017) and online gaming (Hung et al., 2018)) provides wider and more varied access to languages (Leppänen & Peuronen, 2012). This potential for exposure to linguistic diversity does not guarantee engagement, nor plurilingual competence, however, and the monolingual habitus is pervasive in many schools and homes (Melo-Pfeifer, 2023). Our earlier work found that school-based language learning does not always lead students to see themselves as multilingual, nor necessarily see the value of being multilingual in the future (Author 2 et al., 2023). Nonetheless, schools represent an important site of exposure to multilingualism and potential change-maker of attitudes towards the importance of learning languages.

The choice of subject a student takes also represents an important turning point in their educational lives, facilitated and influenced by the school they attend. In England, this specialisation happens at age 14 and has been shown to be explained by characteristics such as gender, prior attainment and socio-economic background (see Anders et al., 2018). For

instance, girls have been shown to be more likely to choose a modern foreign language subject, even when prior attainment is controlled for (Jin et al., 2011; see also Parrish, 2023). If a student studies a language at secondary school (by choice, or by school policy), the language offered is, in policy terms, unrestricted (DfE, 2013). In practice, the availability of exams governs the languages taught, and French, Spanish and German consistently account for around 90% of entries. This is far from reflective of all the languages a student may come into contact with in their daily lives. The structure of the curriculum means that a given student may have two choices to make: both whether or not to take a language, and which language to take (although this second choice is not available to all students; see Tinsley & Board, 2017). In reality, these ‘decisions’ can be controlled or influenced by a number of factors, both internal and external to the student. The lack of choice, or diversity of choice, is as pertinent to consider (Parrish & Lanvers, 2019).

All this means that modern foreign languages education is in a paradoxical state where as the potential for exposure to languages outside the classroom increases, the take-up of language learning inside the classroom decreases. We are thus interested in students’ motivation to study a language, as part of their formal schooling, against the backdrop of this paradox. Previous work (Author 1 et al, 2022) has suggested that self-determination theory is an effective framework to measure motivation in schools in England, as it enables modern foreign languages to be treated as a school subject, something to be studied as part of a curriculum, rather than as an endeavour driven by perceptions of the language being learned or a desire to integrate with a target language community as language learning might be in other contexts. As such, in this paper we draw on self-determination theory to measure student motivation and investigate links between motivation and students’ multilingualism.

Self-determination theory

Self-determination theory is a broad theory of motivation encompassing six mini-theories, and widely used in a range of domains including education and language learning (Ryan & Deci, 2017). The most commonly used mini-theories, and those which are used in our study, are organismic integration theory (OIT) and basic psychological needs theory (BPNT). OIT describes a continuum of motivation, ranging from amotivation to intrinsic motivation. In between are different kinds of extrinsic motivation, moving through increasing degrees of internalisation (see Figure 1). Identified regulation and intrinsic motivation, the more autonomous forms of motivation, have been shown to predict continuation behavior (Davis, 2020; Noels et al, 2003) as well as increased engagement (Oga-Baldwin & Nakata, 2017) and higher grades (Alsheikh & Elhoweris, 2011; Ehrman, 1996; Kim, 2011). Previous work using SDT in a UK school context has found a link between choosing the subject and increased autonomous motivation (Author 1 et al, 2019).

BPNT posits that human beings have three basic psychological needs, and that satisfaction of these needs is linked to increased autonomous motivation (Carreira et al., 2013; McEown, Noels, & Saumure, 2014; Noels, 2013), engagement (Jang et al., 2009; Oga-Baldwin et al., 2017) and continuation behavior (Davis, 2020).

Students' multilingual lives

Definitions of multilingualism vary (see Aronin & Singleton, 2012 for a discussion), particularly around the degree of proficiency required of an individual in order to be considered multilingual and the number of languages required (one or more vs. two or more). Some students may consider themselves multilingual as a result of the language learning they have undertaken at school; by contrast others may consider that they have not learned 'enough' language to be able to identify in this way (Bailey et al, 2023; Fisher et al, 2018). It has been suggested that although linguists may take a broad view, the lay public may see

multilingualism through a narrower lens, associating the term with a high level of proficiency and perhaps use (Aronin & Singleton, 2012).

In line with Haukås et al's (2021a; 2021b) project, upon which the present study draws, we take 'a broad, holistic approach to multilingualism' (2021a, p. 12) considering all languages in students' linguistic repertoires, regardless of level. Accordingly, we are interested in students' whole linguistic lives, whether stemming from home or school, and their perceptions of multilingualism and themselves as potential multilinguals. Schools act as sites of multilingual development for young people; in many cases (for Anglophones at least) the only such sites (see Fielding, 2022; Fisher et al, 2018). They may provide an individual with their only exposure to language learning, or with initial exposure which leads to further learning of the same or other languages. Haukås et al (2021b) note that in their Norwegian context, all students can be considered multilingual by this broad definition, which is not the case in our context where the schools are located in an area with only a small minority of people reporting having a first language other than English (see Office for National Statistics, 2023).

Multilingualism can be of both cognitive (Bialystock, 2009; Monnier et al, 2022) and intercultural (see Deutscher, 2011; Liddicoat, 2013) benefit to individuals as well as having economic benefits (Ayres-Bennett et al., 2022; Foreman Peck & Wang, 2014). Studies have explored multilingualism amongst school-age populations in England (see for example Forbes et al, 2021; Gayton & Fisher, 2022; Little, 2021; Rutgers et al, 2021) and have explored links between multilingualism and motivation amongst school-age learners in other contexts (see for example Calafato & Tang, 2019; Henry, 2017; Henry & Thorsen, 2018), to our knowledge this is the first to investigate links between multilingualism and motivation in English schools.

This study

This paper reports on findings from a larger study (see Author 2 et al., 2023). The study investigated students' linguistic lives, including both home and school, and links between these linguistic lives, motivation to study a language subject and their attitudes towards multilingualism. The research context would typically be seen as a highly monolingual area (Office for National Statistics, 2023), although we recognise the potential for richly diverse linguistic lives not to be captured by narrowly-conceived state measures of language use, and have striven to collect more nuanced data regarding language use within this study (Author 2 et al. 2023).

An online survey was administered to secondary school students within one geographical region of England. In order to assess students' attitudes towards multilingualism, we used the Beliefs about Multilingualism (BAM) and Future Multilingual Selves (FMS) scales from Haukås et al.'s (2021b; 2022) *Ungspråk* questionnaire, as well as items which related to students' own linguistic lives. To measure motivation, we used items from both the Self-Regulation Questionnaire-Academic (SRQ-A; Ryan and Connell 1989) and the Language Learning Orientations Scale (LLOS; Noels et al, 2003). These items measure motivation in line with the continuum specified by organismic integration theory, from amotivation to intrinsic motivation (see Figure 1).

Type of regulation	Amotivation	External regulation	Introjected regulation	Identified regulation	Intrinsic motivation
Characterised by	Lack of motivation to act	Seeking external rewards, avoiding external punishments	Allocation of internal rewards and punishment	Personal importance, conscious valuing of outcome	Interest, enjoyment, inherent satisfaction
Sample questionnaire item: Why are you	I can't see why I study a second language,	Because that's what I'm supposed to do	Because I would feel guilty if I didn't know	Because I want to learn new things	Because it's fun

learning a language?	and frankly, I don't care	a second language
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Figure 1: Self-determination continuum

In addition, we measured competence satisfaction and frustration using items from the Basic Psychological Need Satisfaction & Frustration Scale (BPNSFS; Chen et al, 2015). We did not measure autonomy or relatedness in this study; however, we used the 6-item version of the Learning Climate Questionnaire (LCQ; Williams & Deci, 1996) to capture a measure of relationship with the teacher (I feel that my teacher provides me with choices and options; my teacher encourages me to ask questions). The items used are presented in the Appendix.

We conducted factor analysis with Varimax rotation on the individual scales. For all scales except external regulation, scree plots indicated that they each constituted single factors. In the case of external regulation, the items loaded onto two factors: one relating to future employment (in order to get a better job later on; in order to be paid more later on) and the other relating to the experience of learning the language (because I have the impression that it is expected of me; because I'll get into trouble if I don't; so that the teacher won't shout at me; because that's what I'm supposed to do). We re-labelled these factors External (current) and External (future) for subsequent analyses.

In addition to the scales described above, the questionnaire included a range of items focusing on students' demographic characteristics and linguistic lives, which we used to group students for analysis. These were categorised as 'demographic characteristics' (gender, school year, choice group and language learned), 'education level' (whether parents had been to university and whether the student planned to go) and 'linguistic lives items'. These related to students' exposure to other languages; specifically whether or not their parents or carers spoke another language (we did not specify to what level), whether their friends spoke other languages at home, whether they considered themselves multilingual, and whether they had

travelled to a country where the language they were learning at school was spoken. We also created a researcher-assigned multilingual variable based on the data from open text responses to items regarding languages known, whether students indicated that they used another language with friends or family or that it was their first language or that they felt they knew it well. For this purpose, we did not consider that learning a language at school constituted multilingualism.

We created one further variable based on responses, which we called multilingual habitus (after Lanvers, 2017). Where participants had indicated that a parent *or* a friend spoke another language, *or* they had travelled to a country where the language they were learning was spoken, *or* where they met the research-assigned multilingual criteria, they were considered to have a multilingual habitus (see Table 1).

	Yes	No	Not sure	Total
Parents / carers	153	200	68	421
Friends	163	163	95	421
Multilingual (self report)	82	248	88	418
Multilingual (researcher judgement)	84	337	-	421
Travel	201	221	-	422
Multilingual habitus	308	114	-	422

Table 1: Multilingual habitus

Participants

A convenience sample of schools was recruited, using networks from the authors' institutions, resulting in 422 students between the ages of 11-16 from 16 schools participating in the study. As part of the anonymity and to increase take-up from the schools, students were not asked to identify their schools and so it is not possible to say how many came from each. After agreeing to participate, schools were sent the link to the online questionnaire which they could then distribute using their parent communication systems to allow students to complete the questionnaire in their own time. Participation was voluntary, anonymous, and not actively encouraged or monitored by schools. Students were asked to seek the consent of

a parent or guardian but undertake the questionnaire alone, in line with ethical guidelines for young people (BERA, 2018) and as approved by the authors' departmental and institutional ethics committees.

As the study focused on student motivation in language learning, only students studying a foreign language at school were eligible to take part. The languages they were studying are shown in Table 3. 206 participants (49%) identified as female, 184 (44%) male and 7 (2%) as non-binary. We collected their school year rather than their age as this is more informative in relation to their language(s) education. Table 4 shows how many participants were from each year group. The response rate was higher from younger pupils; around half the participants were in the first two year groups of secondary school (ages 11-13) where MFL is compulsory for all. As this is the first point at which students are exposed to systematic language learning in England, it is a key period for developing attitudes towards language learning (Taylor & Marsden 2014; Graham et al., 2016).

	N	%
French	189	46.3
Spanish	144	35.3
German	27	6.6
Other	8	2.0
Multiple	40	9.8
Total	408	

Table 4: Languages studied

Table 4: Participants by school year

Year group (age)	Frequency	%
7 (11-12)	106	25.1
8 (12-13)	103	24.4
9 (13-14)	91	21.6

10 (14-15)	75	17.8
11 (15-16)	35	8.3
Prefer not to say	12	2.8
Total	422	100.0

Of the 110 students in Years 10 or 11 who completed the questionnaire, 87 had had a choice about whether or not they should take a language (in other words, they had chosen the subject) and 22 had not. One participant did not answer.

Findings

All data was found to be non-normally distributed, and so Kruskal-Wallis and Mann-Whitney U tests were carried out as appropriate to establish whether any of the demographic characteristics or linguistic lives items affected students' responses on any of the scales described above. Because participants identifying as a gender other than male or female were so few, these participants are included in descriptive analysis only.

Motivation

Students' motivation was shown to be strongly affected by their linguistic lives, but was not substantially affected by their demographic characteristics. There were isolated significant effects: of gender on amotivation ($U = 19042.00$, $z = 2.382$, $p = .017$), of school year on current external regulation ($H(4) = 12.36$, $p = .015$) and of choice on introjected regulation ($U = 478.50$, $z = -2.047$, $p = .041$).

For the Current External Regulation construct, consisting of items from the SRQ-A relating to externally regulated reasons for engaging in languages work at school, post-hoc comparisons showed that students in Year 8 had significantly higher scores than those in Year 11 ($p = .011$, $r = .28$). No other significant differences were found between other year groups or between students' other characteristics, and this, along with the low-medium effect size of this difference, suggests that the externally regulated nature of school language

learning is fairly consistent, regardless of any individual differences between students or their linguistic lives.

By contrast, Future External Regulation, which is based on the two forward-looking items of the LLOS relating to future jobs, was affected by all linguistic lives characteristics except whether friends spoke another language, and parents' education, as shown in Tables 5-8. In all cases, students who answered 'yes' had higher scores than those who did not, suggesting a link between multilingual linguistic lives and being motivated by a sense that language skills were linked to greater earning potential. Effect sizes were small, suggesting that the links were not particularly strong.

Introjected regulation, characterised by acting as a consequence of feelings of pride and guilt, was affected only by choice, with those who had not had a choice having higher levels of introjected regulation than their peers who had chosen to take the subject. Boys were found to have higher levels of amotivation than girls.

Although demographic characteristics had little effect on motivation, students' linguistic lives characteristics showed a range of significant, if small, effects (see Tables 5-8). All aspects of students' linguistic lives, including having parents or friends who spoke other languages, reporting that they were multilingual and having travelled had significant effects on identified regulation, and all except having friends who spoke another language affected intrinsic motivation, suggesting that being around languages in the family setting helped students internalise the value of language learning. In all cases, where a significant effect was found, students with more multilingual linguistic lives had higher motivation of all kinds, and lower amotivation. Parent education had no significant effects on student motivation, but where students reported planning to go to university themselves it had a similar effect to being multilingual.

In line with the conventions of self-determination theory, we combined the scores for intrinsic motivation and identified regulation to create a mean score for autonomous motivation. We ran tests using the self-reported multilingualism ($H(2) = 32.59, p < .001$) and multilingual habitus ($U = 19915.50, z = 4.90, p < .001$) constructs as independent variables. These showed that students who perceived themselves as multilingual had higher autonomous regulation than those who did not ($z = -5.69, p = .000, r = 0.31$) and those who were unsure ($z = 3.13, p = .005, r = 0.24$), and that those who had a multilingual habitus were also more autonomously regulated ($r = 0.24$).

	Linguistic lives item	Test results	Post hoc results		
			No-Yes	No-Not sure	Not sure-Yes
Intrinsic	Parent language	H(2) = 13.92, $p < .001$	$z = 3.60, p = .001, r = 0.19$		
	Friend language	H(2) = 5.08, $p = .079$			
	Multilingual (self-report)	H(2) = 21.77, $p < .001$	$z = -4.61, p = .000, r = 0.25$		
Identified	Parent language	H(2) = 18.39, $p < .001$	$z = 4.24, p = .000, r = 0.16$		
	Friend language	H(2) = 7.50, $p = .024$	$z = 2.70, p = .021, r = 0.15$		
	Multilingual (self-report)	H(2) = 37.053, $p < .001$	$z = -6.08, p = .000, r = 0.33$		$z = 3.52, p = .001, r = 0.27$
Introjected	Parent language	H(2) = 9.49, $p = .009$	$z = 3.05, p = .007, r = 0.16$		
	Friend language	H(2) = 4.78, $p = .092$			
	Multilingual (self-report)	H(2) = 28.64, $p < .001$	$z = -5.28, p = .000, r = 0.29$		$z = 2.58, p = .030, r = 0.20$
External (future)	Parent language	H(2) = 9.81, $p = .007$	$z = 2.66, p = .024, r = 0.14$	$z = -2.46, p = .042, r = 0.15$	
	Friend language	H(2) = 5.53, $p = .063$			
	Multilingual (self-report)	H(2) = 10.02, $p = .007$	$z = -2.99, p = .008, r = 0.16$		$z = 2.66, p = .024, r = 0.20$
			Yes - No		
Amotivation	Parent language	H(2) = 8.23, $p = .016$	$z = -2.61, p = .027, r = 0.14$		
	Friend language	H(2) = 2.14, $p = .343$			
	Multilingual (self-report)	H(2) = 11.36, $p = .003$	$z = 3.18, p = .004, r = 0.17$		

Table 5: Results of Kruskal-Wallis tests for motivation scales

Test results	Post hoc results
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		No-Yes	Not sure-Yes
Intrinsic	$H(2) = 10.65, p = .005$		$p = .010, r = 0.15$
Identified	$H(2) = 11.97, p = .003$	$p = .033, r = 0.15$	$p = .015, r = 0.14$
Introjected	$H(2) = 6.81, p = .033$		
External (future)	$H(2) = 14.56, p < .001$	$p = .008, r = 0.18$	$p = .010, r = 0.15$
Amotivation	$H(2) = 7.15, p = .028$		

Table 6: Results of Kruskal-Wallis tests for University Plans item

	Linguistic lives item	Test results
Intrinsic	Multilingual (researcher judgement)	$U = 14788.00, z = 2.28, p = .023, r = 0.11$
	Travel	$U = 21034.50, z = 1.37, p = .170$
	Multilingual habitus	$U = 19755.50, z = 4.77, p < .001, r = 0.23$
Identified	Multilingual (researcher judgement)	$U = 16544.00, z = 4.20, p < .001, r = 0.20$
	Travel	$U = 21825.00, z = 2.07, p = .038, r = 0.10$
	Multilingual habitus	$U = 19594.50, z = 4.60, p < .001, r = 0.22$
Introjected	Multilingual (researcher judgement)	$U = 16403.50, z = 4.04, p < .001, r = 0.20$
	Travel	$U = 20438.50, z = 0.08, p = .400$
	Multilingual habitus	$U = 19235.00, z = 4.23, p < .001, r = 0.21$
External (future)	Multilingual (researcher judgement)	$U = 15493.00, z = 3.07, p = .002, r = 0.15$
	Travel	$U = 22824.50, z = 2.98, p = .003, r = 0.15$
	Multilingual habitus	$U = 18206.00, z = 3.22, p = .001, r = 0.16$
Amotivation	Multilingual (researcher judgement)	$U = 11849.50, z = -0.99, p = .323$
	Travel	$U = 18023.50, z = -1.35, p = .178$
	Multilingual habitus	$U = 12074.00, z = -3.11, p = .002, r = 0.15$

Table 7: Results of Mann-Whitney U tests for motivation scales

	Test results
Intrinsic	$U = 10127.50, z = -0.50, p = .615$
Identified	$U = 9334.50, z = -1.60, p = .109$
Introjected	$U = 10963.00, z = .66, p = .512$
External (future)	$U = 10542.50, z = .07, p = .941$
Amotivation	$U = 11165.00, z = .97, p = .329$

Table 8: Results of Mann-Whitney U tests for Parent Education item

Beliefs about languages

All linguistic lives items were found to have an effect on students' scores on the beliefs about multilingualism and future multilingual selves scales, except whether they had friends who used other languages, which had a significant effect on all scales. The results from these tests are shown in Tables 9 and 10. In all cases, the students with the more multilingual lives had higher scores, suggesting that exposure to languages had a positive effect on beliefs about languages. However, generally speaking, the effect sizes were low. We attribute this, in part at least, to the nature of the sample, which was deliberately from an area considered largely monolingual in terms of first languages (Office for National Statistics, 2023). However, an

effect size in the medium range suggest that the effect of considering oneself multilingual on perceived future multilingual selves is important. Where we judged the participant to have a multilingual habitus, the effect size was also around the medium point for future multilingual selves.

	Linguistic lives item	Test results	Post hoc results		
			No-Yes	No-Not sure	Not sure-Yes
Beliefs about multilingualism	Parent language	H(2) = 20.47, $p < .001$	$z = 4.49, p = .000, r = 0.24$		
	Friend language	H(2) = 9.47, $p = .009$	$z = 2.78, p = .016, r = 0.15$		
	Multilingual (self-report)	H(2) = 18.36, $p < .001$	$z = -4.24, p = .000, r = 0.23$		
Future multilingual selves	Parent language	H(2) = 41.27, $p < .001$	$z = 6.37, p = .000, r = 0.34$	$z = -2.90, p = .011, r = 0.18$	
	Friend language	H(2) = 24.41, $p < .001$	$z = 4.76, p = .000, r = 0.26$	$z = -3.26, p = .003, r = 0.20$	
	Multilingual (self-report)	H(2) = 35.79, $p < .001$	$z = -5.92, p = .000, r = 0.33$		$z = 4.39, p = .001, r = 0.24$

Table 9: Results of Kruskal-Wallis tests for beliefs about languages scales

	Linguistic lives item	Test results
Beliefs about multilingualism	Multilingual (researcher judgement)	U = 17518.00, $z = 3.43$, $p < .001$, $r = 0.17$
	Travel	U = 24732.50, $z = 2.20$, $p = .028$, $r = 0.11$
	Multilingual habitus	U = 21068.50, $z = 3.48$, $p < .001$, $r = 0.17$
Future multilingual selves	Multilingual (researcher judgement)	U = 19444.00, $z = -5.48$, $p < .001$, $r = 0.27$
	Travel	U = 24529.00, $z = 2.23$, $p = .026$, $r = 0.11$
	Multilingual habitus	U = 23475.50, $z = 5.80$, $p < .001$, $r = 0.28$

Table 10: Results of Mann-Whitney U tests for beliefs about languages scales

Basic psychological needs

In line with the findings for other sets of scales, demographic characteristics had little effect on basic psychological needs items (competence frustration and satisfaction and the learning climate). In terms of competence satisfaction, Year 11 had higher scores than Year 10 with a medium effect size ($z = -3.36$, $p = .008$, $r = 0.32$) suggesting that those students at the end of their GCSE exam courses felt more competent than those at the beginning, but there were no other significant differences between year groups. Some effects were seen between students studying different languages, including large effects between those studying languages other than French, Spanish or German and those studying multiple languages, and those studying German (see Table 11). However, these may be attributable in part to the low numbers of students in these groups (8, 40 and 27, respectively).

Languages	Test results
Other - Spanish	$z = 3.14$, $p = .017$, $r = 0.25$
Other - multiple	$z = -3.63$, $p = .003$, $r = 0.52$
Other – German	$z = 3.70$, $p = .002$, $r = 0.63$
French – multiple	$z = -2.86$, $p = .047$, $r = 0.19$

Table 11: Results of Kruskal-Wallis tests for Competence satisfaction and language studied

Gender was the only demographic characteristic which significantly affected competence frustration, with female students having higher scores ($U = 14147.00$, $z = -3.674$, $p < .001$).

Only one other characteristic affected competence frustration, namely, whether students considered themselves multilingual, with those who did not having higher competence frustration scores ($z = 2.96$, $p = .009$, $r = 0.16$).

Linguistic lives characteristics had a greater effect on competence satisfaction than competence frustration, as shown in Tables 12 and 13. None of the effect sizes were particularly large, although as previously, those relating to students' multilingualism had the

biggest effect. Identifying as multilingual also had a significant effect on perceptions of the teacher and classroom environment, as measured by the learning climate questionnaire ($H(2) = 11.62, p = .003$). Those who considered themselves multilingual had higher scores than those who did not ($z = -2.98, p = .009, r = 0.16$) and those who were not sure ($z = 3.14, p = .005, r = 0.24$), suggesting a link between perceived multilingualism and a more positive perception of the classroom environment.

Finally, wanting to go to university had a positive effect on both competence satisfaction ($H(2) = 17.69, p < .001$) and perceptions of the learning climate ($H(2) = 11.53, p = .003$) with students who wanted to go to university having both higher competence satisfaction scores than those who were unsure ($z = 4.20, p = .000, r = 0.21$) and higher scores on the learning climate questionnaire ($z = 3.35, p = .002, r = 0.17$).

Linguistic lives item		Test results	Post hoc results	
			No-Yes	Not sure-Yes
Competence satisfaction	Parent language	$H(2) = 8.81, p = .012$	$z = 2.57, p = .030, r = 0.14$	$z = 2.41, p = .048, r = 0.16$
	Friend language	$H(2) = 4.61, p = .100$		
	Multilingual (self-report)	$H(2) = 19.57, p < .001$	$z = -4.27, p = .000, r = 0.24$	$z = 3.57, p = .001, r = 0.27$

Table 12: Results of Kruskal-Wallis tests for beliefs about languages scales

Linguistic lives item		Test results
Competence satisfaction	Multilingual (researcher judgement)	$U = 15940.50, z = 2.57, p = .010, r = 0.13$
	Travel	$U = 21748.00, z = .820, p = .412$
	Multilingual habitus	$U = 21383.50, z = 5.17, p < .001, r = 0.25$

Table 13: Results of Mann-Whitney U tests for beliefs about languages scales

Discussion & Conclusion

This paper reports on a study conducted in an area not known for its linguistic diversity and, as such, we were particularly interested to see what effect a multilingual habitus had on student motivation in students' language lessons at school, and on their beliefs about languages. Despite the seemingly monolingual nature of the sample, the positive impact of being around languages other than English could be seen within the data. Intervention studies have previously shown that students' multilingual identities are not always tied to their exposure to multiple languages in the home (Forbes et al, 2021; Lanvers et al, 2019), and so although somewhat unexpected given the lack of intervention in the current study, this finding is in line with recent literature. We anticipate that with a more diverse sample, larger effects would also be seen. Our results certainly suggest that exposure to languages in the home or in day-to-day life is likely to have a positive effect on both motivation to study languages and beliefs about languages, as represented by the original Norwegian context for the Ungspråk questionnaire (Haukås et al., 2021b; 2022). While we were unable to extract the role of school language learning within this data, it remains true that school has the potential to be a source of exposure for all young people, rendering it an essential component in fostering a multilingual habitus (see Fisher et al, 2020). This, which is perhaps less tangible than other initiatives (e.g. curriculum reform), arguably has untapped potential in terms of addressing the decreasing interest in school-based language learning.

When examining the demographic variables in the data, effect sizes were quite low and we did not find that any of our measures had particularly substantial consistent impacts on students' motivation or beliefs. We were surprised not to see greater effects of students' demographic characteristics on motivation and need satisfaction, especially in light of the findings of Author 1 et al (2019) and Author 2 et al (2023) which showed that year group and choice impacted on motivation. To some extent, we attribute the low impact of these

variables in the current study to the homogeneity of the school experience, whereby lessons are likely to be experienced as to some degree controlled for all students, regardless of their other characteristics. Given that we know that student need satisfaction predicts motivation (Carreira et al., 2013; McEown, Noels, & Saumure, 2014; Noels, 2013), we might postulate that where there is little variation in need satisfaction between students with differing demographic characteristics, there is also little variation in motivation and as such the effect of the demographic characteristics is not large, but this also bears further investigation.

Moving forwards, there is scope to further refine the linguistic lives section of the questionnaire, in recognition that these are complex, even in seemingly (highly) ‘monolingual’ areas (see Author 2 et al., 2023). This will be particularly important if this research is to be extended to areas which have historically been more linguistically diverse, and this comparison would help to strengthen our understanding of the role of schools as a site of exposure to multilingualism and an essential component in increasing future generations’ uptake of language learning.

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Appendix: Questionnaire items and source questionnaires

Item	Scale	Origin
Because it's fun	Intrinsic	SRQ-A
Because I enjoy doing my school work well		SRQ-A
Because I enjoy it		SRQ-A
Because I choose to be the kind of person who can speak more than one language	Identified	LLOS
Because I think it is good for my personal development		LLOS
Because I want to learn new things		SRQ-A
Because I want to understand the subject		SRQ-A
Because I want the teacher to think I'm a good student	Introjected	SRQ-A
Because I will feel really proud of myself if I do well		SRQ-A
Because I would feel ashamed if I couldn't speak to someone who spoke that language		LLOS
Because I would feel guilty if I didn't know a second language		LLOS
To show myself that I am a good citizen because I can speak a second language		LLOS
In order to get a better job later on	External	LLOS
Because I have the impression that it is expected of me		LLOS

Because I'll get in trouble if I don't		SRQ-A
In order to be paid more later on		LLOS
So that the teacher won't shout at me		SRQ-A
Because that's what I'm supposed to do		SRQ-A
Honestly, I don't know, I truly think I'm wasting my time in studying a second language	Amotivation	LLOS
I can't see why I study a second language, and frankly, I don't care		LLOS
	Beliefs about	
The more languages you know, the easier it is to learn a new language	multilingualism	Ungspråk
People who know many languages are usually smarter than others		Ungspråk
People who know many languages are usually more creative than others		Ungspråk
People who know many languages, usually make more money than others		Ungspråk
Learning new languages helps you to better understand the languages you already know		Ungspråk
Knowing many languages makes you better at other school subjects		Ungspråk
Knowing many languages helps you understand other people's feelings better		Ungspråk
Knowing many languages helps you to see things in different ways		Ungspråk
I can imagine myself in the future as someone who knows more than two languages	Future multilingual self	Ungspråk

I hope that I can use languages other than English in my future job		Ungspråk
In my future job, I think that knowledge of English will be enough		Ungspråk
The person I would like to be in the future speaks many languages very well		Ungspråk
It is important to know another foreign language apart from English		Ungspråk
Learning another language is pointless because everybody knows English		Ungspråk
I can do things well	Competence satisfaction	BPNSFS
I am good at what I do		BPNSFS
I can achieve my goals		BPNSFS
I am good at difficult tasks		BPNSFS
I sometimes feel like a failure when I make mistakes.	Competence frustration	BPNSFS
I often have doubts about whether I'm good at things		BPNSFS
I feel disappointed in a lot of things I do		BPNSFS
I feel insecure about what I am able to do		BPNSFS
I feel that my languages teacher provides me choices and options.	Learning climate	LCQ
I feel understood by my languages teacher.		LCQ
My languages teacher conveys confidence in my ability to do well in the course.		LCQ

My languages teacher encourages me to ask questions.

LCQ

My languages teacher listens to how I would like to do things.

LCQ

My languages teacher tries to understand how I see things before suggesting a new way to do things.

LCQ
