

'Am I multilingual?' The relationship between pre-service teachers' multilingual identities, language experiences and beliefs about multilingualism

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RESEARCH ARTICLE



'Am I multilingual?' The relationship between pre-service teachers' multilingual identities, language experiences and beliefs about multilingualism

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ABSTRACT

Despite an increase in research on language learners' multilingual identities (MId), the construct of *teacher* multilingual identities as a gateway to linguistically inclusive teaching remains under-researched, and the factors shaping teachers' willingness to claim and express a multilingual identity remain unclear. This article explores two factors that might influence teachers' MId, namely teachers' language experience and beliefs about multilingualism. MId data was obtained through a questionnaire administered to 117 pre-service teachers spanning subject specialism in England. A sub-sample of 51 participants also completed a Q-sorting activity where they expressed their views of multilingualism. Correlation analyses revealed that perceived language fluency had the strongest association with MId. Furthermore, those participants who held a prescriptive view of languages and perceived multilingualism as the exception in schools also tended to express a monolingual identity. The article concludes with a discussion of the implications of the study findings for researchers and teacher educators.

KEYWORDS

Multilingualism; multilingual identity; teacher education; teacher beliefs; Q-sort

Introduction

By adopting an encompassing view of multilingualism and conceptualising today's schools as multilingual environments, researchers have argued that teachers considering themselves multilingual and holding a language-as-resource orientation towards multilingualism may be better prepared to work in today's multilingual classrooms (Higgins and Ponte 2017; Morea and Fisher 2025; Vikøy and Haukås 2023). However, despite an increase in observational and experimental research on language learners' multilingual identities (MId), the construct of *teacher* MId as a potential gateway to linguistically inclusive teaching remains under-researched. In particular, whilst research has theorised and empirically demonstrated the close link between language learners' multilingual identities and (self-)beliefs (Fisher et al. 2020; Forbes et al. 2021; Haukås 2022), the factors influencing (pre-service) teachers' willingness to claim and express a multilingual identity remain unclear.

This article explores two factors that might influence pre-service teachers' MId, namely teachers' language experience and beliefs about multilingualism. Data are drawn from the first author's doctoral project, a larger mixed-methods study that explored longitudinally the development of pre-

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service teachers' multilingual identities and beliefs about multilingualism during teacher education. In this article, we focus on the relationships between these constructs, and particularly on the potential link between pre-service teachers' multilingual identities, their language experiences and their beliefs of multilingualism. The article begins with a discussion of theoretical and empirical research around the construct of (teacher) multilingual identities, before presenting the data collection tools used and the study context. After presenting the study results, the article concludes with a discussion of its findings and a reflection on the theoretical and practical implications for researchers and teacher educators.

Background

Defining multilingualism

In recent years, multilingualism has seen research momentum in the field of applied and educational linguistics, a phenomenon labelled as the *multilingual turn* in applied linguistic research (Conteh and Meier 2014; May 2013). However, researchers from different disciplines have embraced various conceptualisations of multilingualism. For example, different definitions exist based on whom scholars and researchers ascribe as multilingual, which may depend on the number of languages in one's linguistic repertoire, on the level of proficiency, or on the frequency of language use (Haukås 2022). Whilst some definitions of multilingualism imply frequent use of multiple languages (e.g. Franceschini 2011; Kemp 2009), less prescriptive conceptualisations of who is multilingual have been proposed, which challenge the distinction between mono-, bi- and multilingual learners. In acknowledging that, in the current globalised society, virtually everyone is exposed to multiple languages, and may, as a result, develop a linguistic repertoire comprising of a variety of linguistic and semiotic resources, scholars have argued that every learner can be considered multilingual (Fisher et al. 2020; Haukås 2022).

Accordingly, in this article we embrace an encompassing view of multilingualism that considers all students, as well as teachers, as multilingual, although they may not identify as such (Fisher et al. 2020). We believe that this definition provides an effective lens to explore multilingualism in education, as it recognises the linguistic diversity in today's schools. In England, the context of this study, schools can indeed be conceptualised as multilingual spaces characterised by the coexistence of multiple dimensions of language (i.e. English, languages taught as part of the curriculum, students' and staff's home, heritage and community languages) (Forbes and Morea 2024), regardless of whether multilingual practices are actively promoted or hindered inside and outside the classroom. Promoting an inclusive view of multilingualism that challenges a dichotomous separation of students and teachers into monolingual or multilingual may thus represent a suitable approach to reinforce social cohesion (Fisher et al. 2020).

Conceptualising (pre-service) teacher multilingual identity

Multilingual identity can be defined as 'an umbrella identity, where one explicitly identifies as multilingual [...] because of an awareness of the linguistic repertoire one has' (Fisher et al. 2020: 449). Multilingual identity may thus be considered as a second-order construct, which encompasses individuals' language-specific identity as well as their 'understandings of themselves as users of more than one language' (Forbes et al. 2021: 434). This construct has recently received renewed attention from applied and educational linguists, and particularly in the field of language education, as evidenced by a recent special issue of *The Language Learning Journal* specifically focused on multilingual identity research in education (Forbes and Rutgers 2021) and by an edited book on the relationship between multilingualism and identity (Ayres-Bennett and Fisher 2022).

In the context of language education, language learners' MId has been theorised to be shaped by three dimensions, namely experience, emotion and evaluation (Forbes et al. 2021). Experience refers

to ‘a learner’s exposure to and interaction with languages across their lifespan’ (Fisher et al. 2024: 435). Emotion represents an important but often underexplored factor shaping one’s identity (Zembylas 2003), and among the various emotions associated with one’s linguistic repertoire and multilingual identity, pride has been found to be particularly powerful (Forbes et al. 2021). Evaluation is a cognitive component that closely relates to one’s beliefs: Forbes et al. (2021) conceptualise the evaluation component as comprised of two sets of beliefs, namely one’s beliefs about language (e.g. perceived importance of knowing or learning additional languages) and one’s language self-beliefs (e.g. evaluation of oneself as a language learner or speaker) (Fisher et al. 2024). Whilst the model of language learners’ MId initially proposed in Fisher et al. (2020) and further refined in Forbes et al. (2021) and Fisher et al. (2024) provides a useful theoretical background to expand our understanding of multilingual identity to (pre-service) teachers, a conceptualisation of this construct in the context of teachers and teacher education is nonetheless required.

An adapted model of MId for (pre-service) teachers would need to account for the personal and professional dimensions of teachers’ identities (Beauchamp and Thomas 2009). This is particularly the case when investigating the process of identity construction of pre-service teachers, as it involves ‘the juxtaposition and potential reconciliation of the personal and professional dimensions of what it means to be a teacher’ (Henry 2016: 292). Pre-service teachers’ multilingual identities should thus both be explored through their personal component, namely the extent to which a trainee teacher may identify (and be identified by others) as a multilingual person, and their professional component, that is how a trainee teacher positions her- or himself in the multilingual classroom (e.g. as a monolingual person who may expect monolingualism to be the norm or as a multilingual person who may recognise and draw on her/his students’ multilingual repertoires) (Morea and Fisher 2025).

This element of identity positioning directly connects teachers’ identity with their beliefs, thus implying a relationship between pre-service teachers’ multilingual identities and their beliefs about multilingualism. However, despite the theorised close link between identity and beliefs (Fisher et al. 2024), little research has explored this relationship in the context of (pre-service) teachers. Regarding *multilingual* identity and beliefs *about multilingualism* specifically, understanding the links between these constructs may enrich future multilingual-identity research, as ‘[h]ow multilingualism and related concepts are referred to is likely to influence who identifies as multilingual’ (Haukås 2022: 281).

(Pre-service) teacher beliefs about multilingualism

Borg (2011: 370) defines teacher beliefs as ‘propositions individuals consider to be true and which are often tacit, have a strong evaluative and affective component, provide a basis for action, and are resistant to change’. This definition seems particularly suitable to the conceptualisation of multilingual identity discussed above, as it supports the hypothesis that teachers’ beliefs about multilingualism are intrinsically connected to teachers’ language self-beliefs and emotions. Accordingly, the present study hypothesises that a relationship exists between pre-service teachers’ multilingual identities and their personal and professional beliefs about language and multilingualism. It is reasonable to assume that, on a cognitive level, pre-service teachers will try and construct a professional identity that is coherent with their beliefs; therefore, it can be hypothesised that changes in pre-service teachers’ beliefs over the course of a teacher education programme may affect their professional identities, and vice versa. Additionally, together with identity, the formation of teachers’ professional beliefs is a crucial element of teacher education (Borg 2011; Kagan 1992) and research has repeatedly pointed to the link between teachers’ beliefs and their teaching practices (Griva and Chostelidou 2012; Haukås 2016; Pettit 2011; Portolés and Martí 2020).

Recent years have seen a surge in studies exploring teachers’ beliefs about multilingualism, and the resulting body of research suggests that teachers tend to hold positive views about multilingualism as a phenomenon (e.g. Calafato 2020; De Angelis 2011; Haukås 2016; Lundberg 2019; Portolés

and Martí 2020; Vikøy and Haukås 2023). However, fewer studies seem to have explored pre-service teachers' beliefs in relation to teachers' ascriptions of who is multilingual, particularly in the context of England. Additionally, less research attention has been paid to exploring the beliefs of teachers of subjects other than languages. Research by the first author (Morea 2024) has shown that pre-service teachers spanning subject specialisms in England differ in their conceptualisation of multilingualism. Specifically, the beliefs expressed by a sample of 51 pre-service teachers in England could be statistically separated into three profiles, each reflecting a different conceptualisation of multilingualism. The first profile represented a more inclusive perspective on multilingualism, by rejecting the notion of fluency and daily use as a pre-condition for being multilingual and by accepting other sources of linguistic diversity like dialects as contributing to one's multilingual repertoire. The second profile expressed a prescriptive view of multilingualism, strongly rejecting the idea that everyone is multilingual as only those able to communicate in multiple languages could be considered as such. Nonetheless, pre-service teachers aligning with this profile also highlighted the benefits and necessity of language learning and the ubiquity of multilingualism in English society. The third profile, defined as 'problematic', embraced a similar prescriptive view of multilingualism to the second profile, but also viewed monolingualism as the norm in school and society and expressed negative attitudes towards the importance of language learning. Drawing on these findings, this article explores the relationships between pre-service teachers' alignment with these belief profiles and their self-ascribed multilingual identities.

Pre-service teachers' language experience

The last variable considered in this study is pre-service teachers' exposure to languages, whether as home languages or learned through education. England has been experiencing a 'language education crisis' (Muradás-Taylor and Taylor 2024: 92), particularly due to the low proportion of students continuing to study a language other than English after the age of 14 (Collen 2023). This translates into fewer students continuing to study a language in higher education and the subsequent closure of many language programmes (Muradás-Taylor and Taylor 2024) and in the difficulty of recruiting prospective language teachers by teacher educator programmes in the country. This lack of engagement with language in formal learning contexts may have implications for teachers' adoption of linguistically inclusive practices in the multilingual classroom.

Although few studies have examined pre-service teachers' experience with language in England, Foley et al. (2018) surveyed a sample of 182 primary and secondary pre-service teachers about their perceived language ability. When asked if they spoke a language other than English, 69 respondents out of 182 gave an affirmative answer (37.9%), 56 (30.8%) gave a negative answer, and the remaining 57 did not respond to the question (31.2%). Whilst the researchers recognised that pre-service teachers may have interpreted the question differently based the level of fluency that they perceived was needed to consider themselves as speakers of an additional language, these findings led them to conclude that '[t]he majority of respondents therefore would not appear themselves to be able to participate directly in translanguaging practices' (Foley et al. 2018: 36). Arguably, more than implying the need to increase trainee teachers' language exposure, these results seem to highlight the importance of understanding issues around pre-service teachers' definitions of multilingualism and multilingual identities in the context of teacher education and training, an objective that this article seeks to address.

Study aims

This article aims to explore which factors may shape pre-service teachers' likelihood to identity as multilingual, and particularly the role played by pre-service teachers' language experience and their beliefs about multilingualism. Accordingly, the study aims to answer the following research questions (RQs):

RQ1: What is the relationship between pre-service teachers' multilingual identities and language experience?

RQ2: Do pre-service teachers with different conceptualisations of multilingualism differ in the way they express a multilingual identity? If yes, how?

Methodology

Research methods

Questionnaire

The questionnaire developed for this study was inspired by Forbes et al.'s (2021) questionnaire on secondary students' multilingual identities and was designed to take approximately ten minutes to complete. The questionnaire firstly collected background information before exploring the respondents' language experience. Specifically, respondents were asked to list all their languages (including their first language) and select their perceived ability in each. Regarding the latter, the questionnaire included six options (i.e. basic, basic+, intermediate, intermediate+, advanced and advanced+/native), which broadly aligned with the levels of the Common European Framework for Languages. Additionally, participants were asked to indicate whether they had lived outside the UK for at least a few months, in which country and the circumstances of the experience.

Finally, the questionnaire tapped into the participants' multilingual identities through five items (Table 1). One item was multiple-choice, and three items were Likert-type, ranging from -3 (strongly disagree) to +3 (strongly agree). The last item was a 101-points visual analogue scale ranging from 0 (monolingual) to 100 (multilingual), and participants were asked to place themselves somewhere on the line based on their self-identifications. These five items were designed to link to the experience, evaluation and emotion components shaping participants' MId (Forbes et al. 2021). More information on the questionnaire can be found in Morea and Fisher (2025).

Q-sorts

The Q-sort is a research method traditionally used in Q methodology. During a Q-sort activity, participants are presented with a large list of statements on a topic, which they need to rank-order into a grid in a way that reflects their own viewpoints on the topic. The completed Q-sorts are then analysed using by-person factor analysis to detect statistically significantly distinct factors, namely configurations of viewpoints shared by like-minded participants within the sample (Morea and Ghanbar 2024).

In this study, participants engaged with 30 statements on the topic of multilingualism, which were largely taken from previous work by Lundberg (2019), but also included questionnaire items used in Calafato (2020), De Angelis (2011), Fisher et al. (2020) and Portolés and Martí (2020). These statements reflected a variety of views in relation to the meaning of multilingualism (e.g. 'everyone is multilingual', 'knowing a dialect does not make one multilingual'), the benefits or perceived disadvantages of being multilingual (e.g. 'multilingualism provides cognitive advantages', 'multilingual students have a more expanded vocabulary'), the importance of languages and language learning (e.g. 'some languages are more important than others', 'learning multiple

Table 1. Questionnaire items (multilingual identity).

Code	Statement	Type	Scale
MId1	Number of additional languages reported.	Multiple choice	0 to 5
MId2	I embrace opportunities to use a foreign language, even if I am not very good at it.	Likert	-3 to +3
MId3	I am proud of my linguistic repertoire.	Likert	-3 to +3
MId4	People important to me see me as a multilingual person.	Likert	-3 to +3
MId5	Self-rating on a monolingual-multilingual scale.	Visual analogue scale	0 to 100

languages at the same time is a source of confusion'), and the prevalence of multilingualism in schools and society (e.g. 'our society is predominantly monolingual', 'in English schools, multilingual students are a minority'). More information on instrument development and statement identification may be found in Morea (2022, 2024).

Context, sample and data collection

The MId questionnaire and the sorting activity were circulated online in September and October 2020 using a two-pronged approach. The first author introduced the project during an online session with pre-service teachers from a large university-based teacher education provider; secondly, a post containing information on the project and the questionnaire links was shared on social media. A total of 117 pre-service teachers from a range of subjects and phases completed the questionnaire; 78 respondents were recruited through social media and 39 through the teacher education provider where the study was internally advertised. Fifty-one respondents also completed a Q-sort activity online on the QsortTouch website (<https://qsortouch.com/new/>).

Participants were training to become teachers of a variety of subjects, ranging from primary teachers to secondary teachers of arts and humanities subjects (e.g. English, history, geography), STEM subjects (e.g. maths, chemistry, physics) and modern languages (e.g. French, Spanish, German). Regarding the participants' age, this ranged from 20 to 55, mean (M) = 29 and standard deviation (SD) = 8.9, for the 117 participants who responded to the questionnaire, and it ranged from 21 to 52 (M = 28, SD = 7.9) for the 51 participants who also completed the Q-sort. Participant characteristics by sub-sample are presented in Table 2.

Analytical procedures

RQ1

A series of Spearman's Rank-Order correlations were performed using SPSS (version 28). The non-parametric equivalent of Pearson's Product-Moment correlation was chosen since all the variables, except item MId5, were ordinal. The MId5 variable, on the other hand, violated the assumption of (approximate) normality of distribution required for the parametric correlations, as shown by a Shapiro-Wilk's test ($p < 0.001$; Skewness: 0.004; Kurtosis: -1.395).

RQ2

By-person factor analysis on the 51 Q-sorts was conducted on the software KADE (Banasick 2019). This procedure produces a number of factors that reflect similarities in the way the participants ranked-ordered the 30 statements (see Morea 2022 for details on the criteria used for factor extraction, rotation and retention). Three factors (henceforth referred to as F1, F2 and F3) were extracted, each representing a prototypical belief profile found in the sample. Figure 1 summarises the key characteristics of each factor (see below for more information on each factor, as well as Morea 2024).

Table 2. Participant characteristics.

		Questionnaire ($n = 117$)		Questionnaire & Q-sort ($n = 51$)	
		n	%	n	%
Gender	Female	103	88.0	43	84.3
	Male	13	11.1	7	13.7
	Undisclosed	1	0.9	1	2
Subject	Primary	53	45.3	14	27.5
	Secondary, arts and humanities	16	13.7	13	25.5
	Secondary, STEM	12	10.3	9	17.6
	Secondary, modern languages	36	30.8	15	29.4

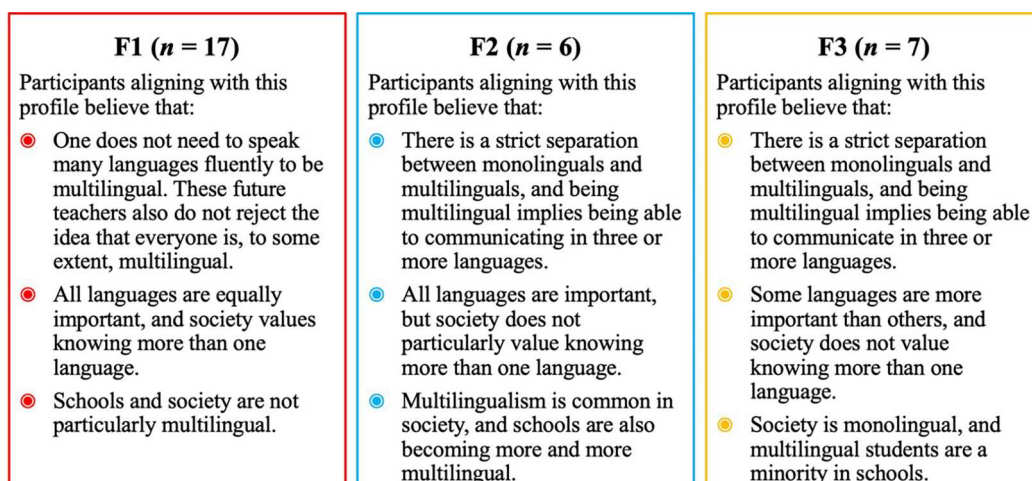


Figure 1. Overview of the three belief profiles.

To statistically assess the relationship between pre-service teachers' alignment to each belief profile and their self-ascribed multilingual identity, participants were grouped based on their association with each retained factor. To maintain a clear distinction between subgroups of participants by belief profile, only participants whose Q-sort loaded uniquely and significantly on one of the three factors were included in the analysis. The resulting categorical variables (1 = factor 1, 2 = factor 2, 3 = factor 3) represented the independent variables in the Kruskal–Wallis H tests.

The distribution of the Mld variables scores by participants' belief profiles was assessed through examination of boxplots. All boxplots detected an outlier in the F3 group in each of the six Mld-variables, which was extreme in four of the six distributions. An outlier is considered 'extreme' if its value lies beyond three times the interquartile range of a distribution (Unwin 2010). Even though the Kruskal–Wallis H test is robust against outliers, it was decided to conduct the tests both with and without it; this choice was justified by the extreme nature of the outlier, its presence across all the Mld-variables and the fact that all the extreme values came from the same participant.

Finally, a new multilingual identity variable, labelled 'Mld scale' was computed as an overall representation of the strength of the participants' multilingual identities. Distributions of scores for all Mld variables were not similar for all groups, as assessed by visual inspection of a boxplot, so the Kruskal–Wallis H tests were used to compare the mean ranks rather than medians between groups.

Results

What is the relationship between pre-service teachers' multilingual identities and language experience?

Language experience

When looking at the respondents' language experience, it is important to consider that the distribution of the whole-sample data was inevitably skewed by the subgroup of modern languages (ML) trainee teachers, from whom most responses were received. To obtain a clearer representation of the linguistic experience of the respondents, therefore, the descriptive statistics of the three language experience variables are presented both for the whole sample and subdivided by non-ML trainees and ML trainees. Additionally, with regard to the 'number of languages' and the 'language ability' variables, the respondents' native language (be it English or another language)

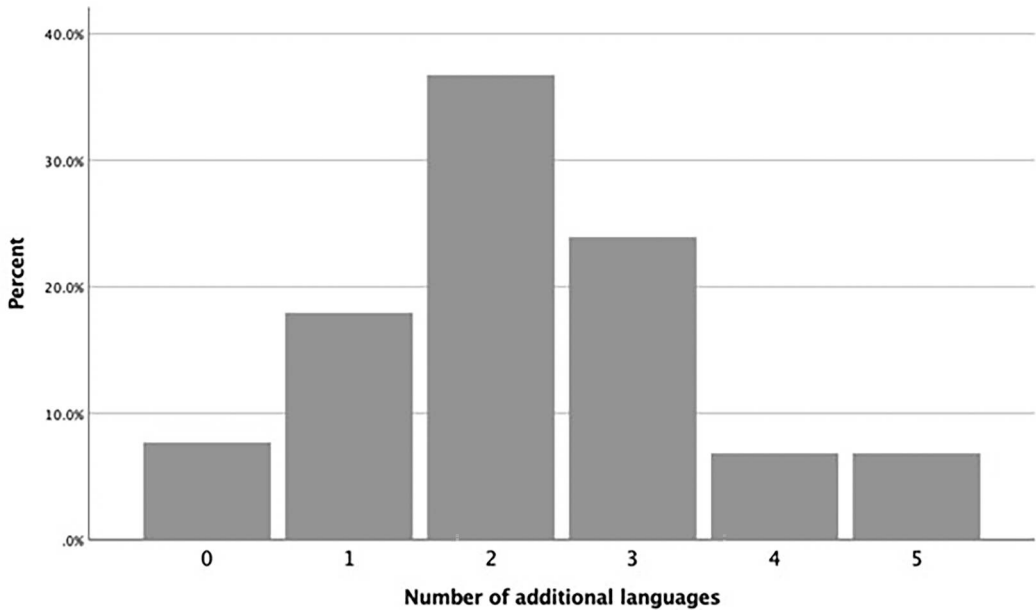


Figure 2. Respondents by number of additional languages reported ($N = 117$).

was removed as to maintain the focus on the respondents' additional languages. Whenever a participant included more than one language as their native language, only one language was removed.

Looking at the whole-sample statistics, 92.3% of the respondents listed at least one additional language in their linguistic repertoire (Figure 2), a percentage that only slightly dropped to 88.1% when excluding ML trainees (Figure 3). Additionally, more than half (53.1%) of the non-ML

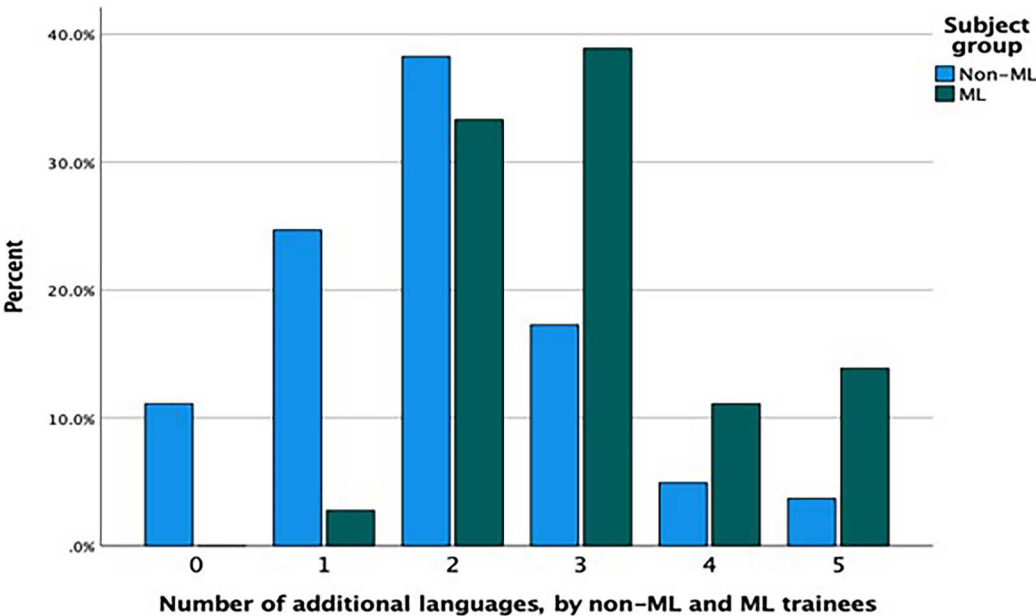


Figure 3. Respondents by number of additional languages reported, by non-ML ($n = 81$) and ML ($n = 36$) pre-service teachers.

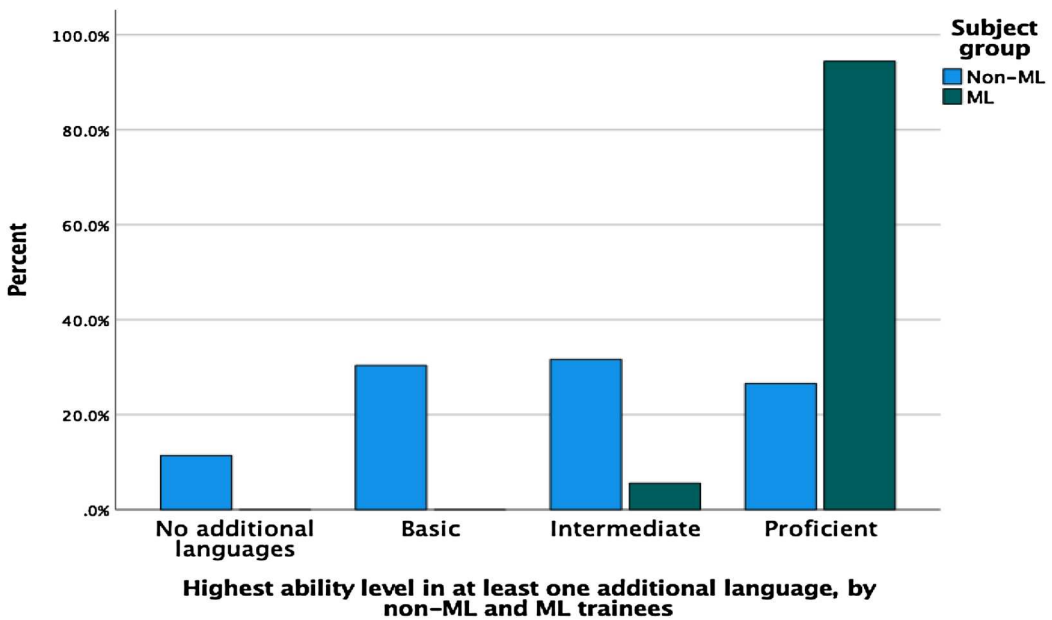


Figure 4. Distribution of respondents by highest level of ability in at least one additional language, by non-ML ($n = 79$) and ML ($n = 36$) pre-service teachers.

respondents listed two or more additional languages. When looking at the highest self-reported ability level in an additional language, more than 25% of non-ML trainees reported to know at least one additional language proficiently (C1-C2 level), 31.6% at an intermediate level (B1-B2) and 30.4% at a basic level (A1-A2), whereas almost all ML trainees were proficient in at least another language (Figure 4). Finally, almost 40% of non-ML trainees had lived in a country other than the UK for an extended time, a percentage that increased to 97.2% among ML trainees.

Looking at the overall self-reported information on trainees' language experience, it could be argued that most pre-service teachers in the sample can be considered multilingual, having had exposure to one or more additional languages. However, it is important to highlight that the voluntary sampling procedure adopted may have resulted in some selection bias; although it was stressed that no experience with languages was required to take part in the study, pre-service teachers particularly interested in the research topic may have been more likely to volunteer.

Multilingual identity

Table 3 reports the measures of central tendency and spread of the five multilingual identity items, grouped by whole sample, non-ML trainees and ML trainees. A descriptive comparison between the respondents' language experience and these variables suggests that, while ML trainees' language exposure tends to coincide with a self-identification as multilingual, this does not seem the case for non-ML trainees. As shown in the previous section, 97.2% of ML trainees had two or more additional languages in their repertoire, with all ML respondents being at an intermediate or proficient level in at least one of their additional languages. In line with this trend, 86.1% of ML trainees placed themselves within the multilingual half (values 51–100) of the visual analogue scale ($M = 79$), while at the same time strongly agreeing that people important to them considered them multilingual, with a median (Mdn) value = 2.5; they also felt very proud of their linguistic repertoire ($Mdn = 3$) and eager to use languages when possible ($Mdn = 2$). The picture looks different for non-ML trainees. Whilst 92.3% of non-ML respondents reported knowing one or

Table 3. Spread and central tendency measures of questionnaire responses (Mld items), by whole sample, non-ML and ML pre-service teachers.

		Mld1	Mld2	Mld3	Mld4	Mld5
Whole sample	<i>N</i>	117	117	117	117	117
	<i>M</i>	2.25	1.32	0.39	−0.09	49.52
	<i>Mdn</i>	2	2	1	0	50
	Range	5	5	6	6	100
	<i>SD</i>	–	–	–	–	32.53
Non-ML	<i>n</i>	81	81	81	81	81
	<i>M</i>	1.91	0.95	−0.46	−1.10	36.42
	<i>Mdn</i>	2	1	0	−2	30
	Range	5	5	6	6	100
	<i>SD</i>	–	–	–	–	29.27
ML	<i>n</i>	36	36	36	36	36
	<i>M</i>	3	2.17	2.31	2.19	79
	<i>Mdn</i>	3	2	3	2.5	79.5
	Range	4	5	5	4	60
	<i>SD</i>	–	–	–	–	16.02

more additional languages and more than 56% considered themselves at an intermediate or proficient level in at least one of them, they tended to place themselves on the monolingual side of the visual analogue scale ($M = 36.42$) and to not think that significant others consider them multilingual ($Mdn = -2$); on average, they also did not feel particularly proud of their linguistic repertoire ($Mdn = 0$), although they might not be reluctant to use additional languages when an opportunity arises ($Mdn = 1$).

Multilingual identity and language experience

The correlation coefficients and significance levels between the multilingual identity and language experience items are reported in Table 4. Whilst all the Mld items correlated significantly with the three experiential variables, the correlation coefficients show that a higher perceived language ability was, across the board, more strongly associated with a multilingual identity (average correlation coefficient of Mld items: .724) compared to the number of experiences living abroad (average correlation coefficient: .556) and the number of (self-reported) additional languages (average correlation coefficient: .461). This trend suggests that, for pre-service teachers, having a high level of competence in an additional language and, to a lesser extent, having spent time abroad for an extended period may represent more important pre-conditions for claiming a multilingual identity than having been exposed to multiple languages.

This finding raises an additional question: if perceived language ability has the strongest association with Mld, what specific language ability levels are associated with a stronger multilingual identity? To answer this question, a series of Kruskal–Wallis H tests was run to statistically compare pre-service teachers' responses to the four Mld items (dependent variables) by the highest self-reported ability in at least one additional language (independent variable), namely 'no additional language' ($n = 9$), 'basic level' ($n = 24$), 'intermediate level' ($n = 27$) and 'proficient level' (including native and native-like fluency, $n = 55$). As a measure of the magnitude of the between-group differences, eta squared (η^2) was computed following Tomczak and Tomczak's (2018) suggested formula based on the H statistics, and its magnitude was interpreted based on the following rules of thumb (Cohen 1988): $\eta^2 = 0.01$ – 0.06 small effect; $\eta^2 = 0.06$ – 0.14 medium effect; $\eta^2 > 0.14$ large effect.

Table 4. Spearman's rank correlation coefficients between questionnaire responses (language experience items and Mld items).

	<i>N</i>	Mld2	Mld3	Mld4	Mld5
Highest language ability	115	.525***	.774***	.767***	.829***
Experience abroad	115	.450***	.543***	.627***	.602***
Number of additional languages (Mld1)	117	.394***	.456***	.488***	.505***

Note: *** $p < .001$.

Table 5. Post-hoc distribution differences in scores across Mld items, by language ability.

Variable	Group 1 – Group 2	Mean rank		Mean rank difference	Adjusted <i>p</i> -value
		Group 1	Group 2		
Mld2	No language – Basic	45.22	32.35	12.87	1.000
	Basic – Intermediate	32.35	49.41	–17.06	.357
	Basic – Proficient	32.35	75.50	–43.15	.000***
	No language – Intermediate	45.22	49.41	–4.19	1.000
	No language – Proficient	45.22	75.50	–30.28	.054
	Intermediate – Proficient	49.41	75.50	–26.09	.003**
Mld3	No language – Basic	26.33	27.38	–1.05	1.000
	Basic – Intermediate	27.38	42.24	–14.86	1.000
	Basic – Proficient	27.38	84.28	–56.90	.000***
	No language – Intermediate	26.33	42.24	–15.91	.640
	No language – Proficient	26.33	84.28	–57.95	.000***
	Intermediate – Proficient	42.24	84.28	–42.04	.000***
Mld4	No language – Basic	21.33	27.15	–5.82	1.000
	Basic – Intermediate	27.15	46.72	–19.57	.266
	Basic – Proficient	27.15	83.00	–55.85	.000***
	No language – Intermediate	21.33	46.72	–25.39	.201
	No language – Proficient	21.33	83.00	–61.67	.000***
	Intermediate – Proficient	46.72	83.00	–36.28	.000***
Mld5	No language – Basic	15.61	25.06	–9.45	1.000
	Basic – Intermediate	25.06	45.76	–20.70	.112
	Basic – Proficient	25.06	85.32	–60.26	.000***
	No language – Intermediate	15.61	45.76	–30.15	.161
	No language – Proficient	15.61	85.32	–69.71	.000***
	Intermediate – Proficient	45.76	85.32	–39.56	.000***

Note: ***p* < .01. ****p* < .001.

The distribution of all Mld scores was statistically significantly different between groups (Mld2: $H(3) = 34.666$, $p < .001$, $\eta^2 = 0.285$; Mld3: $H(3) = 70.676$, $p < .001$, $\eta^2 = 0.61$; Mld4: $H(3) = 67.581$, $p < .001$, $\eta^2 = 0.582$; Mld5: $H(3) = 78.650$, $p < .001$, $\eta^2 = 0.682$). Across all Mld items, significant and very strong differences were thus found between the four groups. These results were followed up through a series of post-hoc tests; specifically, pairwise comparisons were performed using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons. Table 5 displays the mean ranks differences between all the language ability groups for each of the four Mld variables with the corresponding adjusted *p*-value.

The post-hoc tests revealed a common pattern: across all the four Mld items considered, only respondents proficient or native in at least one additional language displayed a significantly different distribution of values from respondents in lower ability groups. Across the between-group mean ranks of all the four Mld variables, no statistical difference was found between the 'no language', 'basic' and 'intermediate' groups. Additionally, when descriptively comparing the medians of the visual analogue scale variable between language-ability groups, only respondents in the 'proficient' group had a median value within the second half of the scale ('proficient' group $Mdn = 79$; 'intermediate' group $Mdn = 35$; 'basic' group $Mdn = 12$; 'no additional language' group $Mdn = 1$). This pattern suggests that pre-service teachers at a (perceived) basic or intermediate level in one or more additional languages tended to believe that their linguistic background was not sufficient to claim a multilingual identity.

Overall, these findings indicate not only that the association between language ability and multilingual identity is extremely strong among pre-service teachers, but also that, for trainee teachers, proficiency in another language may represent an important pre-condition to identify as multilingual. This belief may be the result of how pre-service teachers understand and conceptualise multilingualism, and it may thus stem from trainee teachers' more general beliefs about languages. Accordingly, the next section investigates the relationships between the participants' self-ascribed multilingual identities and their beliefs about multilingualism.

Do pre-service teachers with different conceptualisations of multilingualism differ in the way they express a multilingual identity? If yes, how?

Table 6 shows the results of the Kruskal–Wallis H tests, with the outlier included and excluded. The three groups were F1 ($n = 17$), F2 ($n = 6$) and F3 ($n = 7$, or $n = 6$ when the outlier was excluded). With the outlier included, the distributions of the Mld2 scores ('I embrace opportunities to use a foreign language, if I am not good at it') and the Mld5 scores (self-rating on a monolingual-multilingual scale) were strongly and statistically significantly different between participants aligning with the three belief profiles (Mld2: $H(2) = 7.090$, $p = .029$, $\eta^2 = .189$; Mld5: $H(2) = 6.121$, $p = .047$, $\eta^2 = .153$), whereas the distribution of the Mld scale, Mld1 (number of additional languages reported), Mld3 ('I am proud of my linguistic repertoire') and Mld4 ('people important to me see me as a multilingual person') scores were not significantly different between groups. With the outlier excluded, the distribution of all Mld-scores except Mld1 was very strongly and statistically significantly different between belief profiles. Specifically, Mld scale: $H(2) = 9.875$, $p = .007$, $\eta^2 = .303$; Mld2: $H(2) = 11.377$, $p = .003$, $\eta^2 = .361$; Mld3: $H(2) = 8.296$, $p = .016$, $\eta^2 = .242$; Mld4: $H(2) = 8.807$, $p = .012$, $\eta^2 = .262$; Mld5: $H(2) = 10.029$, $p = .007$, $\eta^2 = .309$.

Post-hoc tests were run for those variables that showed a significantly different distribution, and pairwise comparisons were performed using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons. The mean rank difference between belief profiles for the items Mld scale, Mld2, Mld3, Mld4 and Mld5 are shown in Table 7 with the corresponding adjusted p -value. As displayed in Table 7, when the outlier was excluded, significant mean rank differences between profiles F3 and F1 were found across all the Mld items examined, with profile F3 showing significantly lower mean ranks than profile F1. Significant differences were also found between profile F3 and F2 with regard to the Mld scale, Mld2 and Mld5 items, both including and excluding the outlier, with profile F3 displaying significantly lower mean ranks compared to profile F2. No significant mean rank differences were found between profiles F1 and F2 on any Mld variable. Taken together, these findings indicate that pre-service teachers aligning with factor F3 tended to express a weaker multilingual identity than pre-service teachers loading on factor F1 and F2, whereas no statistically significant differences in multilingual identity were found between trainee teachers aligning with profile F1 and F2.

To understand these findings, it is necessary to consider the beliefs that make profile F3 different from F1 and F2. Compared to the other profiles, pre-service teachers associated with F3 strongly believed that their society is monolingual and that multilingual students are an exception in school; they also believed that learning languages is not particularly valued in society and that some languages are more important than others. Finally, pre-service teachers aligning with both profile F2 and F3 shared a similar view of multilingualism, which was in opposition with that of profile F1, as these pre-service teachers associated multilingualism with communicative competence in three or more languages and decisively rejected the idea that everyone could be considered multilingual.

The above results suggest that pre-service teachers aligning with this set of beliefs may tend to consider themselves monolingual and may not be as appreciative or aware of their own linguistic repertoire compared to pre-service teachers aligning with the other two belief profiles. While

Table 6. Distribution of questionnaire responses (Mld items) by belief profile, with outlier included and excluded.

	Outlier included ($n = 30$)			Outlier excluded ($n = 29$)		
	Kruskal-Wallis' H	Sig.	η^2	Kruskal-Wallis' H	Sig.	η^2
Mld Scale	5.406	.067	.126	9.875	.007**	.303
Mld1	3.021	.221	.038	4.605	.100	.10
Mld2	7.090	.029*	.189	11.377	.003**	.361
Mld3	5.064	.080	.113	8.296	.016*	.242
Mld4	5.114	.078	.115	8.807	.012*	.262
Mld5	6.121	.047*	.153	10.029	.007**	.309

Note: * $p < .05$. ** $p < .01$.

Table 7. Post-hoc distribution differences in scores across Mld items, by belief profile.

Variable	N	Group 1 – Group 2	Mean rank difference	Adjusted <i>p</i> -value
Mld scale (outlier excluded)	29	F3 – F1	11.265	.016*
		F3 – F2	14.0	.013*
		F1 – F2	–2.735	1.0
Mld2 (outlier included)	30	F3 – F1	8.655	.07
		F3 – F2	11.548	.044*
		F1 – F2	–2.892	1.0
Mld2 (outlier excluded)	29	F3 – F1	11.657	.008**
		F3 – F2	14.5	.007**
		F1 – F2	–2.843	1.0
Mld3 (outlier excluded)	29	F3 – F1	10.755	.019*
		F3 – F2	11.417	.051
		F1 – F2	–0.662	1.0
Mld4 (outlier excluded)	29	F3 – F1	11.652	.010*
		F3 – F2	10.083	.109
		F1 – F2	–1.569	1.0
Mld5 (outlier included)	30	F3 – F1	6.744	.263
		F3 – F2	11.964	.043*
		F1 – F2	–5.221	.634
Mld5 (outlier excluded)	29	F3 – F1	10.029	.039*
		F3 – F2	15.083	.006**
		F1 – F2	–5.054	.633

Note: **p* < .05. ***p* < .01.

caution should be exercised in consideration of the small sample size of the groups compared, the results nevertheless point to the existence of a relationship between pre-service teachers' multilingual identities and the type of beliefs they hold regarding multilingualism and languages more generally.

Discussion

Whilst previous research from the same project (Morea and Fisher 2025) assessed changes in pre-service teachers' beliefs and identities after an online intervention, this study investigated the relationships between pre-service teachers' multilingual identities and their language experience (RQ1), and between pre-service teachers' multilingual identities and their beliefs about multilingualism (RQ2). We argue that such investigation represents an important step towards extending current theoretical models of language learners' multilingual identity to understand *pre-service and in-service teachers'* multilingual identities. In the following sub-sections, the findings of each research question are critically discussed, and implications and recommendations for research and practice are provided.

Pre-service teachers' language exposure and multilingual identities

Of the 117 pre-service teachers who completed a Mld questionnaire at the start of a teacher education programme in 2020, almost 95% included more than one language as part of their linguistic repertoire, a percentage that only decreases to 88.1% when excluding (future) teachers training to teach a modern language. This finding is in stark contrast with Foley et al. (2018), who found that only 37.9% of their sample of pre-service teachers in England (*N* = 182, 12 of whom were ML trainees) declared to be able to speak a language other than English. This dissimilarity of results, whilst potentially partly due to the small samples of both studies, may also be explained by the way in which the participants were asked about their language experience. In Foley et al.'s (2018: 35) study, respondents were asked the following question: 'Do you speak a language other than English? If so, what language(s) do you speak?'. As the researchers acknowledge, the relatively low percentage of respondents who gave an affirmative answer might be explained by the

standards of competence they ascribed to claiming an identity as a speaker of another language. On the other hand, the more open approach used in the present study, where participants were asked to simply list their languages and their perceived ability (from basic to proficient), may have encouraged them to include a language even if they would not consider themselves as *speakers* of that language. It thus seems particularly important that the phrasing used in these questions is carefully considered in future research exploring pre-service and in-service teachers' language experience.

Although most non-ML trainees included at least one additional language and more than half self-rated their language ability at least at an intermediate level, non-ML trainees tended to express a monolingual identity through their questionnaire answers. Correlation analysis revealed that language ability was most strongly associated with a multilingual identity. In particular, the analysis did not show significant differences in Mld-item scores between participants with basic, intermediate and no ability in an additional language; only respondents who considered themselves proficient in another language displayed significantly higher Mld scores compared to other respondents. These findings indicate that only those participants proficient in an additional language tended to express a multilingual identity in the questionnaire, suggesting that the pre-service teachers in the sample who had some basic or intermediate knowledge of one or more additional languages may have felt that their experience was not sufficient to claim a multilingual identity. Surprisingly, the most negligible group differences across Mld-item scores were found between participants who indicated knowing one or more languages at a basic level and participants who did not include *any* additional language. This result suggests that, for the trainee teachers in the sample, having some basic understanding of one or more additional languages did not seem to affect their multilingual self-perception, reinforcing the finding that language ability, more than exposure to additional languages, seemed to be perceived as a pre-condition to claim a multilingual identity.

Overall, these findings support Foley et al.'s (2018) reflection on the possibility that the trainees in their sample may have indeed had some language experience, but which they believed was not sufficient to consider themselves as speakers of another language. Such findings may underplay the diversity of pre-service teachers' linguistic repertoires, as they suggest that the population of pre-service teachers in England has had limited exposure to languages other than English. According to the results of the present study, most trainee teachers in the sample had indeed a multilingual repertoire, but many did not seem to recognise and value it. Because of this, it is reasonable to hypothesise that trainee teachers who consider themselves monolingual despite a varied language experience may particularly struggle to recognise the linguistic diversity of their students. Overall, these findings highlight that investigating trainee teachers' multilingual identity represents 'an area ripe for further exploration' (Fisher et al. 2020: 448), as well as support the theorised relationship between language experience, beliefs about multilingualism and multilingual identity (Fisher et al. 2024) and for extending the applicability of the model to (pre-service) teachers.

Pre-service teachers' multilingual identities and beliefs about multilingualism

The study also explored the relationships between pre-service teachers' multilingual identities and their beliefs about multilingualism. Based on the Q-sort data, the participants could be grouped into three belief profiles, each different beliefs about the meaning of being multilingual, the importance of language learning, and the prevalence of multilingualism in school and society. Of these three belief profiles, pre-service teachers aligning with the third belief profile, characterised by a prescriptive view of multilingualism and a monolingual mindset, tended to express a significantly weaker multilingual identity than trainee teachers aligning with the other two profiles. In particular, these participants tended to (i) rate themselves within the monolingual end of the visual analogue scale, (ii) express reluctance to using other languages and, when excluding an outlier from the analysis, (iii) to also feel less proud of their linguistic repertoire. The small sample size strongly limits the possibility to draw any firm conclusion from these data. Nonetheless, it is reasonable

to think that trainee teachers who do not consider all languages as equally important, who believe that being multilingual requires fluency in several standardised languages and who consider monolingualism as the norm may also be less inclined to self-ascribe a multilingual identity.

Implications and concluding remarks

Taken together, the study results suggest that pre-service teachers' MId may be shaped by both trainee teachers' perceived language ability and the way they conceptualise multilingualism. Interestingly, the participants' monolingual self-perceptions were not accompanied by a lack of experience with language learning and acquisition, but rather with a perceived lack of proficiency in their languages. These results provide a rationale for investing more research effort on the construct of pre-service teachers' multilingual identity, as trainee teachers' linguistic self-perceptions may both shape, and be shaped by, their beliefs about language and multilingualism. From a theoretical perspective, the study supports the inclusion of (pre-service) teachers' beliefs about multilingualism and language experience as key constructs underpinning teachers' multilingual identities. Therefore, we recommend that future research on teacher cognition integrate the constructs of multilingual identity and language experience to explore and understand (pre-service) teachers' beliefs and practice in relation to multilingualism and linguistically inclusive pedagogies.

The study findings also have implications for teachers and teacher educators. In the classroom context, it is reasonable to think that it may be more difficult for trainee teachers to value and draw on others' multilingualism in the classroom if their own (self-)beliefs do not align with the multilingual principles behind such pedagogical approaches. As a result, providing opportunities for trainee teachers to question 'language-as-problem' orientations (Vikøy and Haukås 2023: 2) and consider a more inclusive view of multilingualism may represent a valuable approach for preparing future teachers to effectively work in multilingual settings. To achieve this, we argue for the importance of including modules on multilingualism in every primary and secondary teacher education programme. This provision could be further enhanced by incorporating an identity component, whereby student teachers are encouraged to reflect and perhaps challenge their conceptualisations of multilingualism as a way to re-evaluate their language experience and identities.

In today's multilingual world, it seems crucial that schools and teachers adapt their practices to an increasingly diverse student population. However, how can future teachers recognise and value their students' multilingualism if they are unable to recognise and value their own?

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