

## The impact of teacher professional development on teacher cognition and multilingual teaching practices

Anna Krulatz, MaryAnn Christison, Eliane Lorenz & Yeşim Sevinç

To cite this article: Anna Krulatz, MaryAnn Christison, Eliane Lorenz & Yeşim Sevinç (2022): The impact of teacher professional development on teacher cognition and multilingual teaching practices, International Journal of Multilingualism, DOI: [10.1080/14790718.2022.2107648](https://doi.org/10.1080/14790718.2022.2107648)

To link to this article: <https://doi.org/10.1080/14790718.2022.2107648>



© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 07 Aug 2022.



Submit your article to this journal [↗](#)



Article views: 3



View related articles [↗](#)



View Crossmark data [↗](#)

# The impact of teacher professional development on teacher cognition and multilingual teaching practices

Anna Krulatz <sup>a</sup>, MaryAnn Christison <sup>b\*\*</sup>, Eliane Lorenz <sup>a,c</sup> and Yeşim Sevinç <sup>d,e</sup>

<sup>a</sup>Department of Teacher Education, Norwegian University of Science and Technology, Trondheim, Norway; <sup>b</sup>Department of Linguistics, University of Utah, Salt Lake City, UT, USA; <sup>c</sup>Department of English, Justus Liebig University Giessen, Giessen, Germany; <sup>d</sup>Center for Multilingualism in Society across the Lifespan, University of Oslo, Oslo, Norway; <sup>e</sup>Amsterdam Center for Language and Communication, University of Amsterdam, Amsterdam, the Netherlands

## ABSTRACT

This longitudinal case study examined the impact of in-service teacher professional development (PD) on teacher cognition relative to multilingualism and pedagogical practices in linguistically diverse classrooms. Two teachers of English as an additional language (EAL) at a primary school in Norway, who teach large numbers of linguistically and culturally diverse students, participated in twelve workshops that focused on both theoretical and pedagogical aspects of language learning and multilingualism. Drawing on questionnaire and classroom observation data collected during two phases of the project (before and after PD), the findings suggest that the teachers displayed individual trajectories in the development of teacher cognition and practices. While one of the teachers showed considerable change over time, the other one remained more stable, suggesting that individual differences, such as language and family background, education, and teaching experience mediate the impact of PD. Implications for local PD at the site of data collection and broader implications for PD in multilingual contexts are discussed.

## ARTICLE HISTORY

Received 8 April 2021  
Accepted 26 July 2022

## KEYWORDS

Multilingualism; teacher professional development; teacher knowledge; teacher cognition; pedagogical practice

## Introduction

As classrooms around the world are becoming increasingly multilingual and as the number of education programmes that serve multilingual learners grows, research has begun to recognise the essential role that teacher ideologies and practices play relative to promoting multilingualism as the norm and guaranteeing opportunities for multilingual development for all learners. There have been numerous calls for expanding access to the types of curricula that would prepare teachers to foster multilingualism (Alisaari et al., 2019; De Angelis, 2011; García & Kleyn, 2016; Haukås, 2016; Otwinowska, 2014).

**CONTACT** Anna Krulatz  anna.m.krulatz@ntnu.no  Department of Teacher Education, Norwegian University of Science and Technology, NO-7491 Trondheim, Norway

\*\*The second authors (b, c, d) are listed alphabetically.

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

These calls have led to the inception of university courses and programmes that either entirely focus on multilingualism or include modules or topics related to multilingual education. The ultimate goals of these programmes are to (a) promote positive views of multilingualism among pre- and in-service teachers, (b) increase teacher knowledge of multilingualism and multilinguals, and (c) help teachers implement pedagogical practices that foster multilingualism.

Existing research has examined teacher beliefs and knowledge about multilingualism (Alisaari et al., 2019; Burner & Carlsen, 2022; Cenoz & Santos, 2020; De Angelis, 2011; Haukås, 2016; Otwinowska, 2014; Rodríguez-Izquierdo et al., 2020), and several recent studies have investigated the impact of teacher education and professional development (PD) on teacher beliefs about multilingual pedagogies (e.g. Gorter & Arocena, 2020; Portolés & Martí, 2020). The results suggest that including a focus on multilingual pedagogies in initial teacher training and in PD can serve as effective measures for altering teacher beliefs. However, the relationship between teachers' beliefs about multilingualism and their classroom practices is extremely complex (Gorter & Arocena, 2020), and teachers' positive views about multilingualism do not necessarily translate into pedagogies that reflect these beliefs (Haukås, 2016). Although some preliminary research suggests that when given specific guidelines, teachers can be empowered to implement multilingually-oriented pedagogies, such as translanguaging (Cenoz & Santos, 2020), the impact of teacher education and PD on teacher practices in multilingual settings remains underexplored. To address this gap, the present study examines the extent to which in-service teacher PD that is centred on language education and multilingualism can promote change in teacher beliefs, knowledge, and pedagogical practices in a multilingual setting.

## Literature review

### *Language use in the classroom*

Researchers and teachers in the field of second and foreign language teaching have taken varied positions on language use in classrooms with multilingual learners. Most researchers and teachers generally agree that exposure and opportunities to use the target language in classroom contexts are essential for second and additional language acquisition to occur. In fact, some researchers have maintained that exclusive use of the target language provides an optimal environment for learning (Ganuza & Hedman, 2016; Polio & Duff, 1994), and the American Council on the Teaching of Foreign Languages (ACTFL) recommends that learning take place through the target language in 90% or more of classroom time (ACTFL, n.d.). Because research has repeatedly shown that strategic use of learners' first languages (L1s) can support target language development (e.g. García & Kleyn, 2016; Hult, 2017), current trends in teaching English as an additional language (EAL) to multilingual learners have focused on the importance of including students' full linguistic repertoires in the classroom (Cenoz & Gorter, 2017). In fact, failure to make use of learners' linguistic repertoires may lead to unnecessary compartmentalisation as prior knowledge could be encoded in the L1, while the use of the L1 allows for engagement of prior understandings (Bransford et al., 2000; Krulatz et al., 2016). The crucial consideration is no longer *whether* to include learners' L1s in language

classrooms but rather *how much* and *how often* to include them (Brevik & Rindal, 2020; Littlewood & Yu, 2011; Sampson, 2012).

### ***The multilingual turn in language education***

Although monolingual approaches and strict separation of languages have dominated language classrooms for decades, multilingualism is being increasingly recognised as a new norm (Aronin & Singleton, 2012; Grosjean, 2010; Singleton et al., 2013), and learners' existing linguistic repertoires are seen as an asset in additional language learning (Hall & Cook, 2012). To enact *the multilingual turn* (Conteh & Meier, 2014; May, 2019), a major paradigm shift has to take place that would dispense with the notion of an ideal, monolingual native speaker, soften the boundaries between languages instead of enforcing language separation, and fully legitimize the use of all languages known by learners as a valuable pedagogical practice (Butzkamm & Caldwell, 2009; Cenoz & Gorter, 2013, 2020).

To promote pedagogical practices that draw on and support multilingual competence, a number of approaches and conceptual frameworks have been proposed, including awakening to languages (Candelier, 2004), Framework of Reference for Pluralist Approaches to Languages and Cultures (FREPA; Candelier et al., 2012), Focus on Multilingualism (Cenoz & Gorter, 2014, 2019), a holistic model for multilingualism in education (Duarte & van der Meij, 2018), and pedagogical translanguaging (Cenoz & Gorter, 2020), to mention a few. Recent changes in language policies and guidelines also reflect a shift towards acceptance of multilingualism as a norm. For example, the Council of Europe (2018) lists the development of plurilingual competence and building on a plurilingual repertoire as important goals for language education. Multilingualism is also increasingly promoted by individual countries, as is for instance the case with the Norwegian curriculum for English, which stipulates that language learning should entail identifying similarities and differences between different languages that learners know and are acquiring (The Norwegian Directorate for Education and Training, 2019). However, of central importance is recognising the role language teacher beliefs and actions exert on supporting, overlooking, or suppressing the multilingual practices and development of their learners (Hornberger & Cassels Johnson, 2007; Lasagabaster & Huguët, 2007). Teacher beliefs and knowledge about multilingualism and their readiness to work with multilingual learners are discussed in the next section.

### ***Teacher cognition and preparedness to work in multilingual contexts***

Teacher beliefs exert a strong impact on the pedagogical practices that teachers choose to implement (Borg, 2006, 2011). In particular, beliefs about language learning and teaching are linked to ideologies about the social value of the languages that students bring into the classroom (Barcelos, 2003; Fitch, 2003) and in what ways, if at all, these languages are seen as valuable learning resources. Because teacher knowledge and beliefs are intertwined and often impossible to disentangle (Borg, 2006; Lundberg, 2019; Pajares, 1992), the notion of *teacher cognition*, defined as 'what teachers think, know, and believe' (Borg, 2006, p. 1) is frequently employed in the literature. The goal of teacher cognition research is to examine the complex relationships between what teachers know and believe and how their cognition affects their decisions in the classroom.

Teacher cognition is shaped by a range of factors, including previous learning experiences (Lortie, 1975), teacher education programmes, teaching experience in the classroom, and educational legislation (Alisaari et al., 2019; Borg, 2006; Phillips & Borg, 2009), and it is resistant to change (Borg, 2011). However, research suggests that teacher education has the potential to strengthen, extend, and alter teacher cognition (Borg, 2011; Phipps, 2007).

Several previous studies examined teacher cognition about multilingualism relative to additional language learning (Alisaari et al., 2019; Burner & Carlsen, 2022; Cenoz & Santos, 2020; De Angelis, 2011; Gorter & Arocena, 2020; Haukås, 2016; Otwinowska, 2014; Portolés & Martí, 2020; Rodríguez-Izquierdo et al., 2020). Although participants in many of these studies were found to hold positive attitudes toward multilingualism, they generally continued to perpetuate monolingual views of language education and follow monolingual pedagogies characterised by a strict separation of languages and target-language only approaches. For instance, De Angelis (2011) reported that Italian, Austrian, and British teachers in her study did not consider learners' previous language knowledge to be a resource in the classroom and persisted in the practice of banning home languages on school premises. Similarly, the majority of the Finnish teachers in the Alisaari et al. (2019) study did not believe students' home languages to be relevant for learning. Further, several of the studies concluded that even in the cases when teachers value multilingualism, they tend to stress using the majority language only and overlook the importance of supporting the development of home languages (e.g. Haukås, 2016; Rodríguez-Izquierdo et al., 2020). The picture that emerges from this ongoing research is complex, however, because teachers rarely fall into distinct categories of either supporting or opposing multilingualism and multilingual teaching practices. As Jaspers (2022) pointed out, many teachers have ambivalent views about these issues; they may be 'aware that they find monolingualism and multilingualism both worthwhile and continuously grapple with how they should translate this into classroom practice' (p. 4).

Jessner (2008) argued that 'one of the most difficult aims of future work on language teacher education will be to make sure that all language teachers are experts on multilingualism, even if they teach only one language' (p. 45). However, teacher education programmes have not fully succeeded in preparing language teachers for the multilingual reality of their classrooms (Alisaari et al., 2019; Cantone, 2020; De Angelis, 2011; Faez, 2012; Krulatz & Dahl, 2016; Otwinowska, 2014; Rodríguez-Izquierdo et al., 2020), and further research on teacher cognition and PD is needed.

### ***Towards the multilingual dispensation in teacher education***

With an increasing understanding of the benefits of multilingualism and multilingual education, there have been calls to 'restructure' and 'orient' language teaching 'towards multilingual norms' (Jessner, 2008, p. 15). To help language teachers who are working in multilingual and linguistically diverse contexts develop greater linguistic awareness, align with positive views of multilingualism, and implement plurilingual pedagogies, teacher education programmes need to undergo a shift.

Based on the conclusions from the inquiries into teacher cognition about multilingualism, there have been numerous calls for specific changes in teacher education and PD programmes. It has been suggested that teachers need knowledge about (additional)

language acquisition, sensitivity to linguistic and cultural diversity in their classrooms, familiarity with research on multilingualism and pedagogical approaches that cultivate it, and the ability to reflect on their own language ideologies and potential biases (Alisaari et al., 2019; De Angelis, 2011; García & Kleyn, 2016; Haukås, 2016; Otwinowska, 2014). Recent research suggests that participation in PD with a focus on multilingualism can help inspire teachers to alter their views and practices. For instance, Van der Wildt et al. (2017) argued that innovative intervention projects can successfully support teachers in drawing on students' multilingualism as a scaffold. Portolés and Martí (2020) concluded that teachers' beliefs about multilingualism can become more favourable as a result of participation in a course on language teaching, thus stressing the important role of initial teacher training. Likewise, Gorter and Arocena (2020) found that an in-service PD course can empower teachers to develop positive views of multilingualism and multilingual teaching practices. However, changes in teacher beliefs do not automatically translate into transitions in classroom practice; in other words, there is no definitive correspondence between what teachers believe and what they do (Basturkmen, 2012; Borg, 2006; Gorter & Arocena, 2020). To date, however, despite a steep rise in teacher education and PD programmes that either include or expand their instruction for multilingual education, there is a scarcity of research that examines the impact of these programmes on pedagogical practices in multilingual settings.

### **Research questions**

To address the gaps identified above, the present study examined the following research questions:

Research Question 1 (RQ1): To what extent does participation in PD change teacher cognition about language learning and multilingualism for EAL teachers?

Research Question 2 (RQ2): To what extent does participation in PD change language teachers' pedagogical practices in the multilingual EAL classroom?

## **Methods**

### **Context and participants**

This study was part of a currently ongoing longitudinal PD project at a Norwegian primary school (Grades 1–7). The student body represented a heterogeneous group of learners coming from linguistically and culturally diverse backgrounds. This mirrored the social reality of Norway, especially in urban areas: in 2020, the immigrant population (including children born in Norway to immigrant parents) accounted for 18.2 per cent (Statistics Norway, 2020). Although the majority of the student population at the current school spoke Norwegian as an L1, there was a considerable number of students who used other languages at home, either in addition to Norwegian or exclusively (about 33%, although the number fluctuates somewhat every semester)..

In this paper, we examined data collected in both mainstream and sheltered classrooms in Grades 4–7. Newly-arrived students at the school are placed in sheltered instruction classes (so-called *mottak classes*) until they become sufficiently proficient in Norwegian to be transferred to mainstream education. We specifically focused on two

**Table 1.** Background information about T1 and T2.

	Gender	Education	Teaching experience	Language and family background
T1	male	BA in general education studies	No prior teaching experience, EAL teacher at current school since August 2016	Proficient in Norwegian and English; some knowledge of Thai, Spanish, German, Swedish, and Danish; born and raised in a Thai-Norwegian bilingual family
T2	female	MA in Norwegian linguistics	Previous teaching experience at an upper secondary school in Norway, EAL teacher at current school since August 2011	Proficient in Norwegian and English; basic knowledge of French and Spanish; some knowledge of Swedish and Danish; born and raised in a monolingual Norwegian family

of the EAL teachers (henceforth T1 and T2) (see [Table 1](#)) who had participated in the project since its inception in fall 2018 and until the end of the school year 2019/2020. The project was carried out according to the ethical standards of The National Committee for Research Ethics in the Social Sciences and the Humanities in Norway, and all participants signed an informed consent form (NSD approval reference code 887519). The individual teacher profiles are presented in [Table 1](#) to emphasise their different language and family backgrounds, educational paths, and years of teaching experience. Both teachers participated in PD workshops, completed the same questionnaire twice, and were regularly observed by two researchers.

### ***Questionnaire: working with multilingual students in the EAL classroom***

To examine potential changes in teacher cognition relative to multilingualism, language acquisition, and EAL teaching, a questionnaire was administered in the early stages of the project (Phase 1, P1) and following the delivery of the series of twelve PD workshops approximately 1.5 years later (Phase 2, P2). The questionnaire (Angelovska et al., 2020; De Angelis, 2011; Horwitz, 2008) consisted of 45 items. The teachers were asked to indicate their agreement on a five-point Likert scale. Each level on the Likert scale was assigned a numeric value: (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, and (5) strongly agree. The participants were also given the option of not rating and responding with 'don't know.'

In the current study, 19 out of 45 questionnaire items were selected for analysis and grouped into the following five themes: (a) Multilingual Language Acquisition and Development, (b) Language Use at School, (c) Language and Culture, (d) Specific Knowledge about Multilingualism, and (e) Home Language Support ([Table 2](#)).

For 13 questionnaire items, agreement with statements corresponded to a positive score (e.g. Item 25: Multilingual learners should be given opportunities to read and write in their home language(s) at school), whereas in the other six statements, agreement corresponded to a negative score (e.g. Item 21: Multilingual learners must learn one language at a time). In the analysis of the responses, the numeric value of six items was reversed in order to compute a total score, ranging from 1 (negatively-stated views) to 5 (positively-stated views) (e.g. a higher score indicates a more positive view of multilingualism) and to ensure a direct comparison. Following this procedure, the individual scores were compared (i.e. item- and group-based), and then a non-parametric statistical hypothesis test (Wilcoxon test) in R (Version 3.5.1; R Core Team, 2019) was



**Table 2.** Grouped questionnaire items (items with reversed scoring marked with \*).**a) Multilingual Language Acquisition**

- 21. Multilingual learners must learn one language at a time\*
- 22. The use of the home language delays the learning of Norwegian and English\*
- 23. Knowing one language helps multilingual learners learn additional language(s)
- 26. The frequent use of the home language while learning English is a source of confusion for the multilingual learner\*
- 28. It is important for multilingual learners to be able to read and write in their home language because this supports their reading and writing skills in Norwegian and English

**b) Language Use at School**

- 24. Norwegian and English should be the only languages allowed to be used at school\*
- 25. Multilingual learners should be given opportunities to read and write in their home language(s) at school
- 35. English teachers should promote positive attitudes towards all languages spoken by the learners
- 36. English teachers should strive to use only English in their classrooms\*<sup>1</sup>
- 37. English teachers should allow their learners to speak in their home language in class

**c) Language and Culture**

- 29. It is important for multilingual learners to be able to read and write in their home language so that they can participate in their home culture
- 32. For multilingual learners it is more important to know a major international language than their home language\*
- 34. Maintaining the home language helps multilingual learners maintain their home culture as well
- 40. English teachers should offer activities aimed at raising awareness about multilingual learners' home language and culture

**d) Specific Knowledge about Multilingualism**

- 42. To help multilingual learners maintain their home language, the teacher must have some basic knowledge of their language
- 43. English teachers should be trained to meet the needs of multilingual learners in class
- 45. I would like to be more informed about multilingual learners' home language and culture

**e) Home Language Support**

- 41. English teachers should help multilingual learners who wish to maintain their home language with strategies to do so
- 44. I would encourage multilingual learners to maintain their home language

employed to compare whether the mean ranks of the two teachers were statistically significantly different (across teachers and over time). The choice of this test was justified because the data were not normally distributed (based on the Shapiro–Wilk normality test), and the total sample size was lower than 30. We relied on descriptive statistics to understand the individual performances of the two teachers (i.e. the mean) and to identify how each teacher's performance varied within each theme (i.e. the standard deviation). It was not our aim to generalise the results to a larger teacher population beyond this context.

***Classroom observations***

Fourteen EAL lessons, each lasting 60 min, were observed and assessed using the observation protocol Multilingual Approach to Diversity in Education (MADE), which was designed for the current project (see Christison et al., 2021, for further information on MADE). Comprising eight indicators and corresponding features, MADE constitutes a holistic model for education in multilingual settings. The eight indicators are:

1. Classroom as a Multilingual Space
2. Interaction and Grouping Configurations
3. Language and Culture Attitudes
4. Language Use: Learner
5. Language Use: Teacher



6. Metacognition and Metalinguistic Awareness
7. Multiliteracy
8. Teaching Materials

**Table 3** illustrates Indicator 1, Classroom as a Multilingual Space, and its features.

Six of the classroom observations (three per teacher) were completed during P1, while the remaining eight observations (four per teacher) were conducted in P2. Each class was observed and independently assessed by two researchers. Teacher performance on each feature was assessed using a numeric value: (0) not observed, (1) observed once, (2) observed multiple times. In addition, the observers took written notes to provide a justification for each selected score.

Interrater reliability for the scales of MADE was checked through Cronbach's Alpha coefficients and found to be very satisfactory (0.93). The expected mean score for each indicator was calculated as the midrange of the scale scores, based on the assumption that if the teachers were actualising multilingual practices in their classrooms, they should score at least (1) for each of the features within the indicators. The teacher's mean scores for each indicator in MADE were then assessed. To analyse the changes in the two teachers' performances in P2, following the professional development workshops, each teacher's mean scores for the eight MADE indicators from P1 and P2 were subtracted and compared.

### **Professional development workshops**

During P1 and P2, 12 1.5-hour long PD workshops were designed and delivered to help the teachers improve their pedagogical skills and ability to implement multilingual pedagogies. It was agreed upon with the school principal that the workshops would be offered during monthly staff meetings and that participation in the workshops should be mandatory for the teachers. Both theoretical and practical activities related to the MADE indicators (as indicated in brackets) were undertaken in the workshops: language typology, word order, and cognates (Metacognition and Metalinguistic Awareness); principles of language acquisition (Interaction and Grouping Configurations; Language Use: Learner/Teacher); multilingualism in the society and in education (Language and Culture Attitudes); approaches to language learning and teaching with a focus on pronunciation, grammar, vocabulary, reading, and writing (Interaction and Grouping Configurations; Teaching Materials; Language Use: Learner/Teacher); linguistically and culturally supportive classroom environment and translanguaging (Classroom as a Multilingual Space; Language Use: Learner/Teacher). The theoretical input of the workshops was

**Table 3.** MADE Indicator: Classroom as a Multilingual Space.

Classroom as a Multilingual Space	<ul style="list-style-type: none"> <li>• Classroom spaces are appropriately used as a part of culturally- and linguistically-sensitive teaching (e.g. newly-arrived students are seated with learning buddies)</li> <li>• Classroom spaces reflect the linguistic and cultural diversity of the students (e.g. multilingual wall displays, multilingual word walls)</li> <li>• Classroom spaces reflect student involvement in its design and organisation (e.g. student work is displayed)</li> </ul>
-----------------------------------	--

complemented by practice-oriented sessions in which teachers had the opportunity to try out specific teaching materials and online resources developed for multilingual classrooms (e.g. identity texts, language portraits, and language portfolios).

## Results

### *Teacher cognition*

The questionnaire responses of the two teachers (T1, T2) were divided into the five categories (a) through (e) separately for the P1 and P2 questionnaire. T1 and T2 obtained relatively high mean scores for both sets of questionnaires (see Table 4). The lowest mean score was 3.25, and only 7 out of the 20 group mean scores were below 4 (recall that the highest score they could reach is 5). Moreover, T1's responses showed some change, and a small improvement from P1 to P2 was visible (overall mean score increased from 4.11–4.53). T2's responses were comparably stable from P1 to P2, with similar mean scores and small standard deviations. In addition, the mean scores were overall slightly lower than those of T1 (overall mean score for both questionnaires was 3.74).

Following these general observations, comparisons between T1 and T2 and between P1 and P2 questionnaire responses were analysed to determine if there were statistically significant differences between the two teachers across the 19 items (over time), as well as between the P1 and P2 responses of one teacher over time. The two-tailed, independent Wilcoxon tests revealed no statistically significant differences between either T1 or T2 over time (i.e. P1 versus P2 questionnaire) nor between T1 and T2 for P1. However, the observed difference between the two teachers for P2 was statistically significant ( $W = 293, p < .01$ ) and returned a medium effect size ( $r = 0.582$ )<sup>2</sup>. T1 ( $M = 4.53$ ) scored higher than T2 ( $M = 3.74$ ), indicating a more positive view of multilingualism for T1.

There was either no or only a small change in T2's responses with respect to Multilingual Language Acquisition (a), Specific Knowledge about Multilingualism (d), and Home Language Support (e). Conversely, T1 showed a large improvement, particularly in the categories Multilingual Language Acquisition (a) and Specific Knowledge about Multilingualism (d). In addition to the increase in the mean scores in these two categories, there was a decrease in standard deviation. This shows that T1's responses were more homogeneous during P2. Furthermore, some decrease of individual scores pertaining to Language Use at School (b) and Language and Culture (c) were observed in T2's questionnaire responses, as well as Language and Culture (c) in T1's responses. Overall, T2 gave comparably similar responses to both questionnaires. In other words, there was a relative stability in her questionnaire responses, whereas T1's responses showed more fluctuation.

### *Teachers' pedagogical practices*

Drawing on the results from 14 classroom observations (six in P1 and eight in P2), Table 5 summarises mean scores for the two teachers' performances on the eight MADE indicators. The results show that overall, T1's total mean scores were higher than T2's mean scores in both phases. In P1, total mean scores of both teachers were lower than the expected mean score (i.e.  $M = 31.00$ , as the midrange of the scale scores), while in P2, T1's total score ( $M = 31.38$ ) was slightly above the expected mean score.

**Table 4.** Teachers' scores per questionnaire item, P1 and P2, means and standard deviations (SD).

Category	Scoring	Questionnaire item	P1		P2	
			T1	T2	T1	T2
a	reverse	21. Multilingual learners must learn one language at a time	4	3	5	4
a	reverse	22. The use of the home language delays the learning of Norwegian and English	3	3	5	3
a	original	23. Knowing one language helps multilingual learners learn additional language(s)	5	4	4	4
a	reverse	26. The frequent use of the home language while learning English is a source of confusion for the multilingual learner	3	4	5	4
a	original	28. It is important for multilingual learners to be able to read and write in their home language because this supports their reading and writing skills in Norwegian and English	5	4	5	4
		Mean	4.00	3.60	4.80	3.80
		SD	1.00	0.55	0.45	0.45
b	reverse	24. Norwegian and English should be the only languages allowed to be used at school*	5	4	5	4
b	original	25. Multilingual learners should be given opportunities to read and write in their home language(s) at school	4	3	5	3
b	original	35. English teachers should promote positive attitudes towards all languages spoken by the learners	5	5	4	4
b	reverse	36. English teachers should strive to use only English in their classrooms*	4	2	5	3
b	original	37. English teachers should allow their learners to speak in their home language in class	4	4	5	3
		Mean	4.40	3.60	4.80	3.40
		SD	0.55	1.14	0.45	0.55
c	original	29. It is important for multilingual learners to be able to read and write in their home language so that they can participate in their home culture	5	4	3	4
c	reverse	32. For multilingual learners it is more important to know a major international language than their home language*	5	4	4	4
c	original	34. Maintaining the home language helps multilingual learners maintain their home culture as well	4	4	5	4
c	original	40. English teachers should offer activities aimed at raising awareness about multilingual learners' home language and culture	4	4	4	3
		Mean	4.50	4.00	4.00	3.75
		SD	0.58	0.00	0.82	0.50
d	original	42. To help multilingual learners maintain their home language, the teacher must have some basic knowledge of their language	1	4	4	4
d	original	43. English teachers should be trained to meet the needs of multilingual learners in class	5	4	5	4
d	original	45. I would like to be more informed about multilingual learners' home language and culture	4	4	5	4
		Mean	3.33	4.00	4.67	4.00
		SD	2.08	0.00	0.58	0.00
e	original	41. English teachers should help multilingual learners who wish to maintain their home language with strategies to do so	4	3	3	4
e	original	44. I would encourage multilingual learners to maintain their home language	4	4	5	4
		Mean	4.00	3.50	4.00	4.00
		SD	0.00	0.71	1.41	0.00
		Mean (Total)	4.11	3.74	4.53	3.74
		SD (Total)	0.99	0.65	0.70	0.45

Notes: a = Multilingual Language Acquisition, b = Language Use at School, c = Language and Culture, d = Specific Knowledge about Multilingualism, e = Home Language Support; T1 = Teacher 1, T2 = Teacher 2; P1 = Phase 1, P2 = Phase 2; SD = standard deviation.

In P1, both teachers scored lower than the expected mean score on five of the eight MADE indicators (i.e. 1, 3, 6, 7, 8), while in P2, despite the general increase in the mean scores, the teachers scored lower than the expected mean scores on four of the eight

**Table 5.** Mean scores of the two teachers on the eight MADE indicators in P1 and P2.

		P1			P1		Score Range
		Expected Mean	T1 Mean	T2 Mean	T1 Mean	T2 Mean	
1.	Classroom as a Multilingual Space	3.00	3.00	1.50	3.50	2.75	0–6
2.	Interaction/Grouping Configurations	4.00	5.33	3.33	5.87	5.75	0–8
3.	Language and Culture Attitudes	6.00	4.82	2.66	5.25	1.25	0–12
4.	Language Use: Learner	2.00	3.50	3.50	2.62	3.00	0–4
5.	Language Use: Teacher	4.00	4.83	4.16	5.50	6.38	0–8
6.	Metacognition	5.00	1.83	4.00	4.25	4.12	0–10
7.	Multiliteracy	3.00	0.33	0.83	1.33	.62	0–6
8.	Teaching Materials	4.00	2.00	2.50	3.38	3.25	0–8
Total scores		31.00	25.70	22.50	31.38	27.13	0–62

MADE indicators (i.e. 3, 6, 7, 8). T2 scored very low on Indicator 3 in both phases, whereas T1 scored very low on Indicator 6 in P1. On Indicators 2, 4, and 5 both teachers had mean scores higher than the expected mean score ( $M = 4.00$  and  $M = 2.00$ ). Conversely, on Indicators 3, 6, 7, and 8, both teachers had mean scores that were the most distant from the expected mean scores.

**Table 6** provides a deeper insight into the teachers' performance changes in P2. It also indicates the overall increase in both teachers' performance in P2, in which T1 ( $M = 5.73$ ) showed relatively more improvement than T2 ( $M = 4.63$ ). Although the teachers experienced a decline in Indicator 4, they both increased their performance on Indicators 1, 2, 5, 6, and 8. From P1 to P2, T1's scores on Indicator 6 and T2's scores on Indicators 2 and 5 increased substantially. In contrast to T1's slight improvement over P1, a further decline was noted in T2's performance with respect to Indicators 3 and 7. Finally, despite the overall performance increase in P2, the scores were still lower than the expected mean scores, particularly on Indicators 3, 6, 7, and 8, as shown in **Table 5**.

## Discussion and implications

This study investigated the impact of PD on teacher cognition and teaching practices of two EAL teachers working in a multilingual context. The findings indicate that there was little change in the teacher cognition for these teachers as measured by the Phase 1 (P1) and Phase 2 (P2) questionnaire (RQ1), but some differences between the two teachers were noted. While Teacher 1's (T1's) mean scores increased from P1 to P2, Teacher 2's

**Table 6.** Summary of T1 and T2's performance change in Phase 2.

MADE Indicators	T1 Change in P2	T2 Change in P2
1. Classroom as a Multilingual Space	0.50	1.25
2. Interaction/Grouping Configurations	0.54	2.42
3. Language and Culture Attitudes	0.43	-1.42
4. Language Use: Learner	-0.88	-0.50
5. Language Use: Teacher	0.67	2.21
6. Metacognition	2.42	0.13
7. Multiliteracy	0.67	-0.21
8. Teaching Materials	1.38	0.75
Total scores	5.73	4.63

(T2's) scores did not display much change over time, and overall, T2's mean scores were lower than T1's. More nuanced differences between the two teachers can be observed within the specific categories of teacher cognition. For instance, whereas T1 scored higher on Multilingual Language Acquisition (a) and Specific Knowledge about Multilingualism (d) during P2 than P1, T2's mean scores remained stable. A similar trend is observed for the category Language Use at School (b)—T1's scores were generally high, and some improvement was noted from P1 to P2, while T2's scores on the discrete items showed either no change or a decrease. With respect to the category Language and Culture (c), although T1's mean scores were slightly higher than T2's scores both teachers showed a decline from P1 to P2, demonstrating that the development of teacher cognition is sometimes non-linear.

In addition to teacher cognition, this study also examined the impact of PD on the teachers' pedagogical practices in multilingual settings (RQ2). Overall, T1's mean scores were higher than T2's mean scores in both P1 and P2. In P2, although there was an overall increase in the teachers' mean MADE scores, (except the decline on Indicators 3, Language and Culture Attitudes, 4 Language Use: Learner, and 7 Multiliteracy), the scores were still found to be lower than the expected mean scores on four out of eight indicators: 3, Language and Culture Attitudes, 6, Metacognition and Metalinguistics Awareness, 7, Multiliteracy and, 8, Teaching Materials. As with teacher cognition, striking differences were noted between T1 and T2. For instance, T2 scored lower than T1 on Indicator 1, Classroom as a Multilingual Space, in P1 and did not even reach T2's P1 score in P2. T2 additionally showed a decrease in scores on Indicator 3, Language and Culture Attitudes. On the other hand, T1's scores on Indicator 6, Metacognition and Metalinguistic Awareness, increased dramatically from P1 to P2. Overall, these findings suggest that our future workshops should be designed to develop teacher performance particularly drawing on the aspects listed in Indicators 3, 6, 7, and 8. In addition, teachers with low scores might benefit from cooperating with teachers who have high scores, for example Indicator 1, Classroom as Multilingual Space. Given that the total scores for Indicators 1, Classroom as a Multilingual Space, and 4, Language Use: Learner, were only slightly higher than the expected scores, these areas should also be supported through further PD.

The differences in the impact of PD on teacher cognition and teaching practices for T1 and T2 might be explained by the teachers' different educational backgrounds and their years of teaching experience. As a more experienced teacher with a degree in Norwegian linguistics, T2 may have had more stable views about language teaching and been less susceptible to the impact of PD than T1, who had less teaching experience and a degree in general education without specific focus on language. This finding suggests that teaching experience may correlate with the stability of teacher cognition as the more experienced teacher seemed to be more resistant to change than the novice teacher. This result is an important one for teacher educators to consider as they think about how to plan for and implement PD activities for practicing teachers and how to set realistic goals. Changes in teacher cognition, especially for experienced teachers, take place slowly and over time and not as a result of a few workshops. If PD is to be effective in bringing about change, it needs to be conceptualised and planned for in the long term. Individual differences among teachers can also affect outcomes. For example, T1's bilingual background may have helped him relate to the experiences of

his bilingual students, thereby enhancing his uptake during PD. Findings from this study reaffirm the nonlinear nature of teachers' responses to PD and the value of taking individual trajectories into consideration as teachers develop and advance in their practice (Darling-Hammond et al., 2009).

We want to stress that this case study focused narrowly on understanding specific beliefs and behaviours of two EAL teachers. This approach allowed us to gain a greater understanding of our variables and reduce the potential for bias. However, the results have to be taken cautiously as to their generalizability to other contexts because of the small size and the limitations of self-reports.

## Conclusion

It is important for teacher educators to recognise and appreciate the complexity of local contexts, including the individual characteristics of teachers, teacher cognition, school settings, and the timing for PD. As Lortie (1975) noted, practicing teachers are likely influenced by misconceptions of teaching, which arise during their own 'apprenticeships of observation' (p. 61), in other words their experiences as observers of their own teachers. These 'strategically held misconceptions can interfere with significant amounts of later good teaching' (Shulman, 1999, p. 12) and inhibit the potential effectiveness of PD. This type of 'pedagogical immunity' (p. 12) makes it difficult for practicing teachers to accept new ideas and change their thinking about teaching. Additionally, as Jaspers (2020) indicated, teachers may consider monolingualism and multilingualism both beneficial and challenging and thus, struggle with how they ought to interpret their ambivalent views about multilingualism into their teaching practices. Overall, this study confirms that altering teacher beliefs and practices is difficult (Borg, 2011). Why teachers resist or embrace change is not well understood, but recent research suggests that teacher identity work is a promising trend in teacher education (Yazan & Lindahl, 2020), which could also be explored in PD.

To effect change among practicing teachers, there are two essential features of PD on which teacher educators should focus: (a) the structure of the intervention and (b) the content and the way it is delivered (Darling-Hammond et al., 2009; Lipowsky, 2014). The structure of PD for the current research was offered as a long-term, multi-year intervention. The success of any intervention is rooted in whether it is 'sustained, intensive, and focused on the actual classroom' (Murray & Christison, 2019, p. 255). Even though there is no linear relationship between time spent in a PD programme and its success, longer periods of training seem to be necessary to change and extend experienced teachers' generally stable beliefs (Kalinowski et al., 2019). In the PD in this study, teachers learned through reflection, solving problems, and working together in a supportive environment (Yates & Brindley, 2000). The content of the PD was linked to the teachers' own experiences, interests, and needs through the use of an assessment tool. There are a number of advantages for teachers in having access to an assessment tool. Assessment tools provide clarity for teachers because the focus is on observable features of instruction. They also provide transparency by helping teachers understand expectations through the use of indicators that focus on specific practices. It is, therefore, incumbent on the individual teachers to determine whether or not they wish to make changes in these observable features in their classroom practice. An assessment tool, such as

MADE, can, therefore, be employed to provide feedback through peer coaching and self-observation.

## Notes

1. Statement 36 could be interpreted in two different ways. First, agreement to this statement may suggest the value teachers place on the role of input in foreign language learning. However, particularly the proposition of 'only' allows a second reading, namely that any language other than English (i.e., any reference to Norwegian or to other home languages) should be discouraged. Since a recurring theme in the PD workshops was to allow and actively include other languages in the English language classroom, we used reverse scoring here.
2. The effect size was interpreted using the benchmarks suggested by Plonsky & Oswald (2014).

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Funding

This work was supported by the Research Council of Norway under Grant 273406, and partly under Grant 223265. The study has been approved by the Norwegian Centre for Research Data (Ref. 887519).

## ORCID

Anna Krulatz  <http://orcid.org/0000-0002-8588-273X>

MaryAnn Christison  <http://orcid.org/0000-0003-3760-0619>

Eliane Lorenz  <http://orcid.org/0000-0002-8584-8507>

## References

- ACTFL. (n.d.). *Guiding principles*. <https://www.actfl.org/resources/guiding-principles-language-learning/use-target-language-language-learning>.
- Alisaari, J., Heikkola, L. M., Commins, N., & Acquah, E. O. (2019). Monolingual ideologies confronting multilingual realities. Finnish teachers' beliefs about linguistic diversity. *Teaching and Teacher Education, 80*, 48–58. <https://doi.org/10.1016/j.tate.2019.01.003>
- Angelovska, T., Krulatz, A., & Šurkalović, D. (2020). Predicting EFL teacher candidates' preparedness to work with multilingual learners: Snapshots from three European universities. *The European Journal of Applied Linguistics and TEFL, 9*(1), 193–208. [http://www.theeuropeanjournal.eu/download/EJALTEFL\\_01\\_2020.pdf](http://www.theeuropeanjournal.eu/download/EJALTEFL_01_2020.pdf)
- Aronin, L., & Singleton, D. (2012). *Multilingualism*. John Benjamins Publishing Company.
- Barcelos, A. M. F. (2003). Teachers' and students' beliefs within a deweyan framework: Conflict and influence. In P. Kalaja, & A. M. F. Barcelos (Eds.), *Beliefs about SLA: New research approaches* (pp. 171–199). Kluwer Academic Publishers.
- Basturkmen, H. (2012). Review of research into the correspondence between language teachers' stated beliefs and practices. *System, 40*(2), 282–295. <https://doi.org/10.1016/j.system.2012.05.001>
- Borg, S. (2006). *Teacher cognition and language education: Research and practice*. Continuum.
- Borg, S. (2011). The impact of in-service teacher education on language teachers' beliefs. *System, 39* (3), 370–380. <https://doi.org/10.1016/j.system.2011.07.009>



- Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). *How people learn: Brain, mind, experience, and school*. National Academies Press.
- Brevik, L. M., & Rindal, U. (2020). Language use in the classroom: Balancing target language exposure with the need for other languages. *TESOL Quarterly*, 54(4), 925–953. <https://doi.org/10.1002/tesq.564>
- Burner, T., & Carlsen, C. (2022). Teacher qualifications, perceptions and practices concerning multilingualism at a school for newly arrived students in Norway. *International Journal of Multilingualism*, <https://doi.org/10.1080/14790718.2019.1631317>
- Butzkamm, W., & Caldwell, J. (2009). *The bilingual reform: A paradigm shift in foreign language teaching*. Narr Studienbücher.
- Candelier, M. (2004). *Janua linguarum - The gateway to languages. The introduction of language awareness into the curriculum: Awakening to languages*. Council of Europe.
- Candelier, M., Camilleri Grima, A., Castellotti, V., de Pietro, J.-F., Lörincz, I., Meissner, F.-J., Noguerol, A., & Schröder-Sura, A. (2012). *A Framework of Reference for pluralistic approaches to Languages and Cultures: Competences and resources*. European Centre for Modern Languages/Council of Europe.
- Cantone, K. F. (2020). Introduction to the special issue “multilingual students and language education policy in Europe”. *International Multilingual Research Journal*, 14(2), 97–99. <https://doi.org/10.1080/19313152.2020.1736871>
- Cenoz, J., & Gorter, D. (2013). Towards a plurilingual approach in English language teaching: Softening the boundaries between languages. *TESOL Quarterly*, 47(3), 591–599. <https://doi.org/10.1002/tesq.121>
- Cenoz, J., & Gorter, D. (2014). Focus on multilingualism as an approach in educational contexts. In A. Creese, & A. Blackledge (Eds.), *Heteroglossia as practice and pedagogy* (pp. 239–254). Springer.
- Cenoz, J., & Gorter, D. (2017). Minority languages and sustainable translanguaging: Threat or opportunity? *Journal of Multilingual and Multicultural Development*, 38(10), 901–912. <https://doi.org/10.1080/01434632.2017.1284855>
- Cenoz, J., & Gorter, D. (2019). Multilingualism, translanguaging, and minority languages in SLA. *The Modern Language Journal*, 130–135. <https://doi.org/10.1111/modl.12529>
- Cenoz, J., & Gorter, D. (2020). Teaching English through pedagogical translanguaging. *World Englishes*, 39(39), 300–311. <https://doi.org/10.1111/weng.12462>
- Cenoz, J., & Santos, A. (2020). Implementing pedagogical translanguaging in trilingual schools. *System*, 92, 102273. <https://doi.org/10.1016/j.system.2020.102273>
- Christison, M. A., Krulatz, A., & Sevinç, Y. (2021). Supporting teachers of multilingual young learners: Multilingual approach to diversity in education (MADE). In J. Rokita-Jaśkow, & A. Wolanin (Eds.), *Facing diversity in child foreign language education* (pp. 271–289). Springer. [https://doi.org/10.1007/978-3-030-66022-2\\_15](https://doi.org/10.1007/978-3-030-66022-2_15)
- Conteh, J., & Meier, G. (2014). *The multilingual turn in languages education: Opportunities and challenges*. Multilingual Matters.
- Council of Europe. (2018). *Common European Framework of Reference for languages: Learning, teaching, assessment*. Council of Europe.
- Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). Professional learning in the learning profession: A status report of teacher development in the United States and abroad. Retrieved from <https://learningforward.org/docs/pdf/nsdcstudy2009.pdf>.
- De Angelis, G. (2011). Teachers’ beliefs about the role of prior language knowledge in learning and how these influence teaching practices. *International Journal of Multilingualism*, 8(3), 216–234. <https://doi.org/10.1080/14790718.2011.560669>
- Duarte, J., & van der Meij, M. (2018). A holistic model for multilingualism in education. *EuroAmerican Journal of Applied Linguistics and Languages*, 5(2), 24–43. <https://doi.org/10.21283/2376905X.9.153>
- Faez, F. (2012). Diverse teachers for diverse students: Internationally educated and Canadian-born teachers’ preparedness to teach English language learners. *Canadian Journal of Education*, 35(3), 64–84. Retrieved from <https://journals.sfu.ca/cje/index.php/cje-rce/article/view/967>

- Fitch, F. (2003). Inclusion, exclusion, and ideology. Special education students' changing sense of self. *The Urban Review*, 35(3), 233–252. <https://doi.org/10.1023/A:1025733719935>
- Ganuza, N., & Hedman, C. (2016). Ideology versus practice: Is there a space for pedagogical translanguaging in mother tongue instruction? In A. B. Paulsrud, J. Rosen, B. Strazer, & A. Wedin (Eds.), *New perspectives on translanguaging and education* (pp. 208–225). Multilingual Matters.
- García, O., & Kleyn, T. (2016). Translanguaging theory in education. In O. García, & T. Kleyn (Eds.), *Translanguaging with multilingual students: Learning from classroom moments* (pp. 9–33). Routledge.
- Gorter, D., & Arocena, E. (2020). Teachers' beliefs about multilingualism in a course on translanguaging. *System*, 92, 102272. <https://doi.org/10.1016/j.system.2020.102272>
- Grosjean, F. (2010). *Bilingual: Life and reality*. Harvard University Press.
- Hall, G., & Cook, G. (2012). Own-language use in language teaching and learning. *Language Teaching*, 45(3), 271–308. <https://doi.org/10.1017/S0261444812000067>
- Haukås, A. (2016). Teachers' beliefs about multilingualism and a multilingual pedagogical approach. *International Journal of Multilingualism*, 13(1), 1–18. <https://doi.org/10.1080/14790718.2015.1041960>
- Hornberger, N. H., & Cassels Johnson, D. (2007). Slicing The Onion ethnographically: Layers and spaces in multilingual language education policy and practice. *TESOL Quarterly*, 41(3), 509–532. <https://doi.org/10.1002/j.1545-7249.2007.tb00083.x>
- Horwitz, E. K. (2008). *Becoming a language teacher: A practical guide to second language learning and teaching*. Pearson, Allyn and Bacon.
- Hult, F. M. (2017). More than a lingua franca: Functions of English in a globalised educational language policy. *Language, Culture and Curriculum*, 30(3), 265–282. <https://doi.org/10.1080/07908318.2017.1321008>
- Jaspers, J. (2022). Linguistic dilemmas and chronic ambivalence in the classroom. *Journal of Multilingual and Multicultural Development*, 43(4), 281–294. <https://doi.org/10.1080/01434632.2020.1733586>
- Jessner, U. (2008). Teaching third languages: Findings, trends, and challenges. *Language Teaching*, 41(1), 15–56. <https://doi.org/10.1017/S0261444807004739>
- Kalinowski, E., Gronostaj A., & Vock, M. (2019) Effective professional development for teachers to foster students' academic language proficiency across the curriculum: A systematic review. *AERA Open* 5(1), 1–23. <https://doi.org/10.1177/2332858419828691>
- Krulatz, A., & Dahl, A. (2016). Baseline assessment of Norwegian EFL teacher preparedness to work with multilingual students. *Journal of Linguistics and Language Teaching*, 7(2), 199–218.
- Krulatz, A., Neokleous, G., & Henningsen, F. V. (2016). Towards an understanding of target language use in the EFL classroom: A report from Norway. *International Journal for 21st Century Education*, Special Issue 3, 137–152. <https://doi.org/10.21071/ij21ce.v3iSpecial.5713>
- Lasagabaster, D., & Hugué, A. (2007). *Multilingualism in European bilingual contexts*. Multilingual Matters.
- Lipowsky, F. (2014). Theoretische perspektiven und empirische befunde zur wirksamkeit von lehrerfort- und -weiterbildung [theoretical perspectives and empirical evidence on the effectiveness of teachers' professional development and training]. In E. Terhart, H. Bennewitz, & M. Rothland (Eds.), *Handbuch der forschung zum lehrerberuf* (2nd ed., pp. 511–541). Waxmann.
- Littlewood, W., & Yu, B. (2011). First language and target language in the foreign language classroom. *Language Teaching*, 44(1), 64–77. <https://doi.org/10.1017/S0261444809990310>
- Lortie, D. (1975). *Schoolteacher: A sociological study*. University of Chicago Press.
- Lundberg, A. (2019). Teachers' beliefs about multilingualism: Findings from Q method research. *Current Issues in Language Planning*, 20(3), 266–283. <https://doi.org/10.1080/14664208.2018.1495373>
- May, S. (2019). Negotiating the multilingual turn in SLA. *The Modern Language Journal*, (Supplement 2019), 122–129. <https://doi.org/10.1111/modl.12531>
- Murray, D. E., & Christison, M. A. (2019). *What English language teachers need to know volume I: Understanding learning* (2nd ed.). Routledge.

- The Norwegian Directorate for Education and Training. (2019). *Læreplan i engelsk (ENG01-04) [English curriculum]*. <https://www.udir.no/lk20/eng01-04>.
- Otwinowska, A. (2014). Does multilingualism influence plurilingual awareness of Polish teachers of English? *International Journal of Multilingualism*, 11(1), 97–119. <https://doi.org/10.1080/14790718.2013.820730>
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332. <https://doi.org/10.3102/00346543062003307>
- Phillips, S., & Borg, S. (2009). Exploring tensions between teachers' grammar teaching beliefs and practices. *System*, 27(3), 380–390. <https://doi.org/10.1016/j.system.2009.03.002>
- Phipps, S. (2007). What difference does DELTA make? *Research Notes*, 29, 12–16.
- Plonsky, L., Y Oswald, F. (2014). How big is "big"? Interpreting effect sizes in L2 research. *Language Learning*, 64, 878–912.
- Polio, C., & Duff, P. (1994). Teachers' language use in university foreign language classrooms: A qualitative analysis of English and target language alternation. *The Modern Language Journal*, 78(3), 313–326. <https://doi.org/10.1111/j.1540-4781.1994.tb02045.x>
- Portolés, L., & Martí, O. (2020). Teachers' beliefs about multilingual pedagogies and the role of initial training. *International Journal of Multilingualism*, 17(2), 248–264. <https://doi.org/10.1080/14790718.2018.1515206>
- R Core Team. (2019). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. <http://www.R-project.org/>.
- Rodríguez-Izquierdo, R. M., González Falcón, I., & Goenechea Permisán, C. (2020). Teacher beliefs and approaches to linguistic diversity. Spanish as a second language in the inclusion of immigrant students. *Teaching and Teacher Education*, 90, 103035. <https://doi.org/10.1016/j.tate.2020.103035>
- Sampson, A. (2012). Learner code-switching versus English only. *ELT Journal*, 66(3), 293–303. <https://doi.org/10.1093/elt/ccr067>
- Shulman, L. S. (1999). Taking learning seriously. *Change: The Magazine of Higher Learning*, 31(4), 10–17. <https://doi.org/10.1080/00091389909602695>
- Singleton, D., Fishman, J., Aronin, L., & O'Laoire, M. (2013). *Current multilingualism: A new linguistic dispensation*. Mouton de Gruyter.
- Statistics Norway. (2020). Immigrants and Norwegian-born to immigrant parents. <https://www.ssb.no/en/befolkning/statistikker/innvbef/aar> (Accessed 22 October 2020).
- Van der Wildt, A., Van Avermaet, P., & Van Houtte, M. (2017). Opening up towards children's languages: Enhancing teachers' tolerant practices towards multilingualism. *School Effectiveness and School Improvement*, 28(1), 136–152. <https://doi.org/10.1080/09243453.2016.1252406>
- Yates, L., & Brindley, G. (2000). Editorial. *Prospect*, 15(3), 1–4.
- Yazan, B., & Lindahl, K. (2020). *Language teacher identity in TESOL: Teacher education and practice as identity work*. Routledge.