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Consensus building using the Delphi method in educational research: a case study with educational professionals

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ABSTRACT

The study explores the Delphi consensus technique's application in educational research, focusing on identifying barriers and facilitators to educational attainment for children speaking English as an Additional Language (EAL) from the perspective of their teachers. It discusses the methodology's advantages and considerations within an educational context, reflecting on the findings and their implications for future research. Through iterative rounds of surveys among educators, key challenges like linguistic barriers, lack of pedagogical knowledge, and insufficient support were highlighted. The paper advocates for enhanced teacher training and resource allocation to address these barriers effectively. This research contributes to the understanding of consensus-building methods in education and underscores the need for strategic interventions to support EAL students, emphasizing collaborative efforts between researchers and educators to bridge the gap between research and practice in diverse educational settings.

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Consensus building; Delphi; EAL; teachers' perceptions

1. Introduction

There is a growing interest in educational research around collaborative practices between teachers and researchers, driven by the shared goal of improving pupil attainment and closing the gap between research and classroom practice (Bevins and Price 2014, Beveridge *et al.* 2018, McGeown 2023, McGeown *et al.* 2023). This is a promising way to set research priorities that meet the needs of stakeholders. Involving teachers at the earliest stage of the research process enables the development of research that is relevant and, by doing so, increases the likelihood of research-informed practice (McGeown *et al.* 2023). For example, a recent pre-COVID survey revealed that while only 7% of teachers would be willing to use external research in their practice, 60% of teachers would use research developed by teachers or schools (Nelson 2019). By collaborating with teachers there is scope to develop the most needed research for the classroom (McGeown *et al.* 2023). However, there is huge variation in educational practice as a result of school demographics, policies, and individual teacher preferences. Therefore, evidence of what is needed in one classroom may differ significantly from that of another. Using consensus building methods, such as the Delphi technique, may serve as a way to understand teachers' viewpoints and priorities on a larger scale. The Delphi consensus technique is used frequently in health research (e.g. Froud *et al.* 2011, Gasana *et al.* 2021, Wigham *et al.* 2022), but relatively less frequently in educational research. However, recently, this approach has been used to address educationally relevant questions. Sterling *et al.*

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(2023) reviewed research that has used the Delphi approach in applied linguistics. Of direct relevance to the present research, the Delphi has been deployed to set priorities and reach consensus about identifications of language impairments and agree on appropriate terminology (Bishop *et al.* 2016, 2017). However, Delphi studies are infrequently applied to research in the classroom, though some studies have applied the technique in language education (e.g. Harding *et al.* 2023) and higher education (Judd 1972, Lewis 1984, Green 2014). In this paper, we discuss a Delphi study in which teachers identified barriers and facilitators to educational attainment for children with English as an additional language. We reflect upon the suitability of Delphi studies in the context of classroom-based research. We explore how the Delphi method can be effectively applied as a first step in co-producing effective educational interventions to support children accessing the curriculum when English is an additional language. Methodological considerations and recommendations are discussed for future implementation.

1.1. The Delphi consensus technique

The Delphi consensus technique is an iterative two- to five-round questioning method (Borg and Gall 1984) which is most frequently carried out using an online platform, or a hybrid online and in-person method (e.g. Taylor *et al.* 2017). In a modified Delphi, a group of researchers identify key ideas from the literature, which are sent to a group of 'experts' to rank in order of importance. Alternatively, the first round of the Delphi can consist of open questions (Keil *et al.* 2002), giving participants the power to identify ideas that are of most importance to them. The research team is then tasked with content analysis of these open answers to elicit key themes, which are then returned to participants to rank. In the subsequent rounds, participants are given feedback about whole group rankings before being asked to re-rank themes independently (Cyphert and Gant 1971, Cochran 1983, Uhl 1983, Dailey and Holmberg 1990). This allows participants to change or elaborate on their original ideas over time (Figure 1).

1.2. Benefits of the Delphi consensus in educational contexts

Using the Delphi consensus technique in education has many benefits. Firstly, by using an online survey platform, the technique gains insight from teachers from different contexts and can be used both nationally and internationally (Murry and Hammons 1995). Another benefit is the anonymity of participants, which can avoid problems arising from power within normal group scenarios. All participants in a Delphi have equality in status, therefore problems such as bandwagon effects (Martorella 1991) are avoided. The views of an early career teacher or teaching assistant are just as valuable as those of an experienced teacher or senior leader, therefore those with a perceived lower status should not be influenced by the views of a higher status participant, which may arise in a setting such as a group interview.

A further benefit is the smaller number of participants required compared to a more traditional online questionnaire. While a greater number of participants arguably increases the reliability of group rankings, larger numbers can make it more challenging to reach consensus (Santaguida *et al.* 2018). The minimum number for a Delphi panel is generally considered to be 10–18 participants (Cochran 1983, Hasson *et al.* 2000), however Delbecq *et al.* (1975) argued with well-chosen participants, few new ideas are generated in excess of 30 panellists.

1.3. Methodological considerations

The main consideration of a Delphi study is participant attrition. This is likely to occur in a Delphi due to the overall lengthy process with multiple iterations (Murry and Hammons 1995). In educational research, there is the further consideration of the already demanding nature of the teaching profession (Department for Education 2018a, Johnson *et al.* 2005). It is important to keep in mind when employing research with multiple iterations that teachers have limited time to engage, therefore keeping

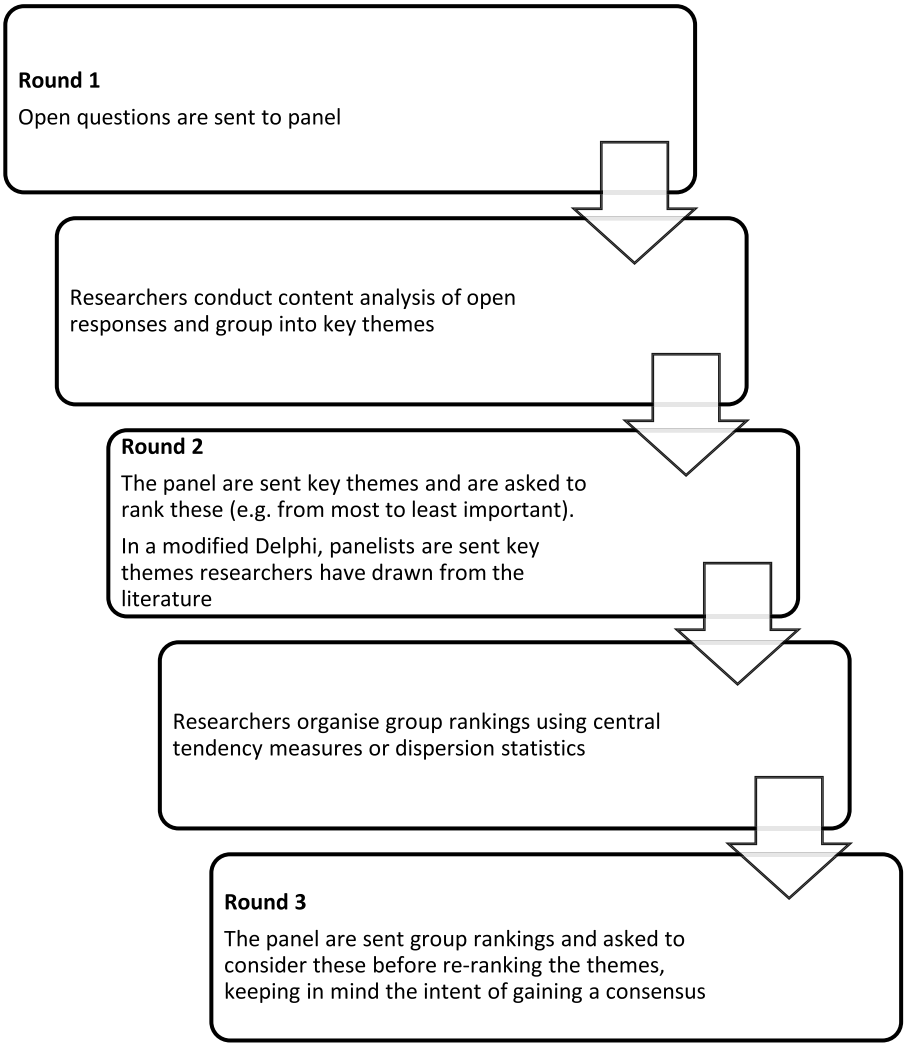

Figure 1. Flowchart documenting the Delphi consensus technique.

questionnaires short and concise is key. Researchers should be clear from the outset in information sheet and consent forms that participants will be asked to respond to multiple questionnaires and the likely time this will take. Where monetary payment for time spent is not possible, it may be worth offering a token of thanks to participants in acknowledgement of their expertise and time.

Another consideration is the definition of *consensus* within a Delphi. There is no general agreement within the literature around how to classify consensus in a Delphi study (Hsu and Sandford 2007). Consensus is generally analysed using central tendency measures, with the median score being used most often (Hill and Fowles 1975, Eckman 1983, Jacobs 1996). However, the use of median scores is not always ideal as they could be misleading if there is clustering of results around two or more points (Jacobs 1996). Standard deviations and interquartile ranges are also recommended to demonstrate response dispersion (Hasson *et al.* 2000). It is important from the start of a Delphi to define your parameters of consensus, how will it be measured, and how to deal with data points that do not reach consensus (for example, they could be eliminated between rounds). Despite these drawbacks, by defining parameters and allowing for attrition, a Delphi technique could be insightful in educational contexts to identify research priorities for the classroom.

2. Materials and methods

We present a case study, exploring the feasibility of a Delphi consensus technique in educational research. This exploratory study investigated teacher practices and perceptions of potential barriers and facilitators to achievement for pupils with English as an Additional Language (EAL) and the support teachers would like to help EAL pupils to excel academically. This case study is timely, as globalization, increased migration, and international refugee crises have resulted in a growing number of children being schooled in a language that differs to that which they speak at home (Murphy 2021). Oftentimes, EAL children acquire their new language during classroom immersion. According to the framework set out by Cummins (1979, 1981), there are two fundamental aspects of second language learning through immersion; Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP). BICS refers to a child's language fluency at a conversational level, e.g. holding a conversation with peers in the classroom or playground, while CALP refers to a child's ability to understand and address academic language, both orally and written. Conversational fluency and academic fluency are distinct constructs (Cummins 2008), with CALP referring specifically to language usage in education. Whereas BICS develops quickly, resulting in 'surface fluency', CALP is far slower, occurring over numerous stages or milestones. The slower development of CALP may be one reason why there is a trend for EAL children to underperform academically compared to monolingual children (Murphy 2014, 2017, 2018, 2018b, Strand *et al.* 2015, Demie 2018). There are, of course, exceptions to this tendency of underperformance (e.g. Hutchinson 2018) and research shows the most proficient EAL children in fact outperform monolingual peers across subjects (Strand and Hessel 2018). This highlights the complexities of generalization for this heterogeneous group of children. However, as children's proficiency in English decreased, so did their attainment in examinations (Strand and Hessel 2018). Indeed, global patterns suggest it is more typical that EAL children will have lower scores than their monolingual peers across Mathematics, English and Science (Murphy 2021).

Some scholars argue that investigating linguistic deficits and CALP of students from diverse backgrounds may be problematic (Edelsky *et al.* 1983, Martin-Jones and Romaine 1986, Edelsky 1990, Wiley 1996). However, Murphy (2021) argues that it would indeed be unethical to acknowledge that a certain group of children are underperforming, and not investigate the underlying reasons.

Understanding what drives the risk factors to attainment is crucial to developing effective strategies and inform policy to support the pupils in our classrooms. It is therefore imperative that the research community engages with teachers to understand where the priorities for future study lie. In this case study, a Delphi consensus method was used as a first step to inform research questions and shape practice, serving as an evidence base for future research needs within EAL pedagogy.

This paper reflects upon the suitability of the method in educational research involving teachers and will address the following research questions:

(1) To what extent, and how, is a Delphi consensus method suitable in educational research?
(2) What are the methodological considerations necessary for conducting the Delphi consensus method with teachers?

2.1. Participants

We defined 'expert' for our panel of participants as a teacher in England who is currently, or has within the previous five years, taught a child for whom English was an Additional Language. Thus, our experts had lived experience of teaching children from this demographic, and we were interested on their perceptions of barriers and facilitators to educational attainment, based on their own classroom practice. To recruit a panel of teachers, an open call targeting social media groups and teacher networks resulted in 31 participants taking part in round one (open questions). Ethical approval was granted from The University of Leeds School of Psychology

(reference number PSC-171) and consenting participants gave an email address and were contacted on three separate occasions using an online questionnaire. Participants had a mean of nine years teaching experience (range 0.5–32 years) and represented a wide sample of locations across England. A quarter of participants represented teachers of children aged between 4 and 11 ($n = 7$) one participant was a middle school teacher (9–13 years). Over half of the representatives taught children aged 11–16 ($n = 19$), one teacher worked across all age ranges, and one was a former teacher now working for local government as EAL specialist support.

These teachers responded to the following open questions:

1. In schools throughout the UK, what are the three greatest barriers to academic achievement for primary and secondary aged EAL pupils?

2i. What additional support would you like to offer if you had the resources?

2ii. Are there any barriers to this?

Responses to open questions were summarized into subtopics using six rounds of data-driven inductive thematic analysis (Braun and Clarke 2006, 2021). Key themes were then returned to the panel of 31. Twenty-two teachers from the initial 31 responded to the round two questionnaire. Three participants were eliminated for incomplete responses, resulting in a final sample of 19 (61% response rate). The average years of teaching experience was 10 years (range 0.5–32).

In the third and final round, 19 teachers from round two were sent the whole group rankings and their own prior rankings. They were then asked to re-rank themes from round two, taking into account whole group responses. Thirteen teachers out of 19 responded to the final round within the 2-week time frame (68% response rate), representing an average of 11 years of teaching experience (range 0.5–30 years).

3. Results

3.1. Round one

3.1.1. Question 1 What are the three greatest barriers to academic achievement for EAL pupils?

Teachers were asked to identify three barriers that they saw as the greatest for EAL children's academic achievement. Some saw factors concerning individual pupils as barriers in themselves, such as motivation of the pupils 'there's a lack of motivation by the pupils', or social and cultural differences 'there's a lack of cultural understanding'. Linguistic weaknesses were also mentioned, whether it came to home language skills 'previous lack of literacy in home language' or English language skills, with teachers identifying a 'lack of academic language'; a 'lack of vocabulary in all subjects' and 'poor reading skills'. Teachers also mentioned difficulties with regards to home communication '[there's a] lack of parental engagement due to language barrier' or the child's age of English language acquisition 'age at which they arrive in the country'.

Themes regarding school practices were common, such as differentiation, a pedagogical term defining work and support that reflects the child's current knowledge and/or skills 'there's very little EAL differentiation given to EAL learners in classrooms outside of EAL specialist support'.

Teachers also identified a gap in their own knowledge about how best to support EAL children '[there's a] lack of EAL-orientated teacher training'. However, some identified other teachers' and leaders' misconceptions about EAL learners as a barrier 'an assumption that pupil is less able'; 'lack of sensitivity to the needs of EAL students by teachers'.

In-school provision was frequently mentioned, such as 'lack of specialised staff' or a 'lack of targeted EAL support in school' and a lack of resources that some thought could be useful 'Lack of bilingual dictionaries or no access to it due to no funding'. Some teachers thought there weren't enough interventions for EAL children 'no interventions'.

3.1.2. Question 2 What additional support would you like to offer if you had the resources? Are there any barriers to this?

Some teachers wanted support staff in school who could speak the languages of pupils in their class 'I would like to be able to send school notices home for parents in their language to further engage them with their child's learning' or language classes for themselves 'training within the child's own language for myself'. An overarching theme of help was apparent, both for the teacher 'Support from language specialist'; as well as for the pupils 'Small group sessions for EAL pupils to teach English as a Second Language' and their families 'ESOL [English as a second or other language] classes, both to help them in their daily lives / studies / careers, but also to help support pupils with their schoolwork'.

Teachers additionally highlighted a desire for more professional learning, 'I would like frequent and ongoing training'.

A final theme was of physical resources such as technology 'Access to electronic devices and translators'; 'Software to produce resources', multilingual resources 'Better quality bilingual resources in a wider range of languages', resources produced by other teachers 'More individual work produced by subject teachers' and visual aids 'Visual timetables and time to make them'.

In terms of barriers to support, teachers highlighted a lack of knowledge and training 'Knowledge, training, understanding of programmes that work', as well as issues around workload 'curriculum pressures', the number of pupils they taught 'class size and a large syllabus', workload, staff and funding issues 'budget' 'money' 'staffing'.

3.2. Round two

Key themes summarizing the most common barriers to learning (see Tables 1 and 2) were sent back to the panel, with teachers asked to rank order themes from the greatest to the smallest barrier. There was a two-week window between iterations (Delbecq *et al.* 1975).

3.2.1. Question 1 In schools throughout the UK, what are the three greatest barriers to academic achievement for primary- and secondary-aged EAL learners?

Collectively the most highly ranked barriers to academic achievement for EAL pupils were a lack of pedagogical knowledge (from teachers), a lack of pupils' English vocabulary and EAL pupils' English literacy skills. A lack of specialist staff and differentiated tasks were additionally ranked highly. Conversely, issues at home, social and cultural differences, pupil motivation and attitudes of staff and senior leaders were ranked as smaller barriers to attainment.

Table 1. Rankings of barriers to academic achievement from greatest to smallest.

	Median	Mode	SD
Lack of EAL pedagogic knowledge	4	1	3.05
Lack of English vocabulary knowledge	4.5	1	3.90
Poor literacy skills in English	5	1	4.11
Lack of specialized staff	4	4	3.03
Lack of differentiation in lessons	6.5	3	4.22
Lack of teaching resources	6	5	4.01
Poor first language skills	6	6	3.11
Lack of interventions	7	9	3.04
Communication difficulties with parents	8.5	8	3.14
Age of arrival in UK	8	14	3.83
Attitudes of staff and senior leaders	9.5	13	4.14
Issues at home	10.5	7	3.73
Social and cultural differences	11	11	2.61
Pupil motivation	12	14	4.78

Table 2. Rankings of support teachers would like to offer if they had the resources from most wanted to least.

	Median	Mode	SD
Bilingual support staff	3	1	4.23
CPD/training for staff	4.5	2	2.20
Small group English lessons for EALs	4	3	3.90
Qualified EAL teachers	5.5	1	3.98
More 1–1 with pupils	4.5	5	3.28
Bilingual resources in wide range of languages	6.5	6	3.38
Targeted interventions	6	7	2.46
More speaking practise in English	8	8	3.02
Collaborative learning	9	7	3.42
English lessons for parents	8	13	3.76
Technology	10	11	3.81
Language classes for teachers/support staff	10	13	3.11
Visual timetables	12	14	2.96

The research team elected to use a cut-off of a median rank above nine from the second round of the Delphi, equating to four responses. The following barriers to academic achievement were therefore eliminated in the subsequent iteration of the Delphi questionnaire:

(3) Attitudes of staff and senior leaders
(4) Issues at home
(5) Social and cultural differences
(6) Pupil motivation.

3.2.2. Question 2 Part 1 What additional support would you like to offer if you had the resources?

Bilingual support staff, continued professional development and qualified EAL teachers were ranked as the most desired support alongside small group English lessons and one-to-one support. Unsurprisingly, language classes for staff were not ranked highly. Given the number of different languages spoken by EAL children in the average UK school, it would be highly impractical to provide this sort of support. Furthermore, with teachers already stretched in terms of workload, it would be difficult to fit in such language classes into an already very busy schedule.

The following answers with a median score of above nine were eliminated for the subsequent iteration:

(7) Language classes for teachers and support staff
(8) Visual timetables
(9) Technology.

3.2.3. Question 2 Part 2 Are there any barriers to this?

Funding was found to be the greatest barrier to additional support that teachers would like to offer, followed by limitations of class-size, and a lack of knowledge and training (Table 3).

As only five barriers were identified for this question, no responses were eliminated before the final round.

Table 3. Rankings of the barriers to additional support teachers would like to offer.

	Median	Mode	SD
Funding	1	1	1.65
Class-size	2	2	1.44
Lack of knowledge/training	2	2	1.45
Workload	3	3	1.08
Staffing	4	4	1.08

3.3. Round three

During the final stage, the panel were sent whole group rankings from the previous round, and a reminder of their own rankings. Teachers again ranked the answers from greatest to smallest barrier or most to least useful support, taking into account group responses.

3.3.1. *Question 1* In schools throughout the UK, what are the three greatest barriers to academic achievement for primary- and secondary-aged EAL learners?

Results remained relatively stable from round two, with a lack of EAL pedagogical knowledge (from teachers) and a lack of in-school specialized staff ranked as the greatest barriers to pupil academic achievement. Lack of pupil English vocabulary and literacy fell slightly behind. A lack of targeted language interventions and a lack of differentiation were collectively ranked behind language-related barriers. However, without sufficient differentiation in-class or withdrawal for such interventions, EAL pupils may struggle to acquire language and literacy skills. Such skills could be targeted if teachers had specialized staff or were confident in EAL pedagogy; barriers ranked the greatest in this Delphi. Encouragingly, the barriers ranked the smallest were communication difficulties with parents and lack of parental involvement, which may show support from parents is commonplace (Table 4).

3.3.2. *Question 2 Part 1* What additional support would you like to offer if you had the resources?

The resource that teachers coveted most was bilingual support staff, which would ensure immediate communication with children and their parents who are new to English. The next resource that teachers in this sample would like is small English language pull-out classes for EAL learners, as well as more professional development to develop teachers' understanding. The resources ranked lowest were collaborative learning and more speaking practice in English during lessons. As part of the same question, teachers were then asked to rank any barriers to the resources they would like to implement (Table 5).

3.3.3. *Question 2 Part 2* Are there any barriers to this?

Funding remained stable from rounds two to three as the greatest barrier teachers faced when sourcing resources for EAL learners. Workload and staffing were the smallest barriers to additional support, which may be surprising considering teachers rated additional support staff and specialist EAL staff as support they most wanted in the previous question. However, since many of the barriers to this question are interlinked, results could be confounded. Effectively, all of the barriers identified can be a consequence of a lack of funding for schools (Table 6).

Table 4. Rankings of barriers to academic achievement.

	Median	Mode	SD
Lack of EAL pedagogy	2	1	2.85
Lack of specialized staff	2	2	2.30
Poor literacy skills	5	4	2.37
Lack of pupil's English vocabulary	5	5	3.10
Lack of differentiation	6	4	3.31
Lack of interventions	6	6	2.53
Poor L1 skills	7	5	3.13
Lack of teaching resources	8	8	3.00
Trauma before starting school	8	9	3.54
Age of arrival in the UK	9	10	3.58
Communication difficulties with parents	9	10	3.05
Lack of parental involvement	11	12	2.65

Table 5. Additional support teachers would like to offer, from support most wanted to least wanted.

	Median	Mode	SD
Bilingual support staff in the classroom	1	1	3.07
Small group English language classes	3	2	1.90
CPD/training for staff	3	2	2.98
Qualified EAL teachers	4	3	2.46
More one-to-one time with pupils	5	4	2.37
Interventions for EAL pupils	5	5	1.64
Bilingual resources in wide range of languages	7	6	2.51
More speaking practice in English	8	9	1.87
English lessons for parents	8	7	1.98
Collaborative learning	8	9	1.78

3.4. Analysis of results

In this report, a final panel of 13 teachers ranked the greatest barriers to achievement for EAL learners, alongside support they would like to offer and the barriers to giving this support.

A lack of knowledge and pedagogy surrounding EAL children, and a lack of staff with specialist EAL knowledge were ranked as the greatest barriers to pupil achievement, slightly ahead of pupils' weaker English vocabulary and literacy skills. A lack of pedagogical knowledge was a theme that was noticeable across questions and across rounds of the Delphi. For example, more training for staff was one of the resources most coveted by teachers. This supports evidence from the Training and Development Agency for Schools (TDA) report delivered by the National Association for Language Development in the Curriculum (NALDIC 2009), which found EAL professional development was inconsistent and inadequate compared to other counties (Hutchinson 2018). The report recommends that the UK should learn from countries such as the USA, Australia and New Zealand, where effective policies exist to establish specialist EAL staffing and programmes for staff development.

In addition, there is no EAL-specific teacher training subject in the UK, and EAL is not a requirement for the training of mainstream teachers (Foley *et al.* 2013, 2018). To qualify as a teacher in England, students must provide evidence they have met certain standards. When it comes to knowledge of EAL learners, teachers must 'have a clear understanding of the needs of all pupils, including […] those with English as an additional language' (Department for Education 2011, p. 11–12) however there is no reference to how this should be achieved. Between 2010 and 2017, the British Government polled newly qualified teachers about how much their initial teacher training prepared them for the profession, with teachers constantly saying they felt under-prepared to teach EAL children. In the last survey before it was scrapped, only 39% of Newly Qualified Teachers reported feeling prepared to teach EAL children (Ginnis *et al.* 2018). Since the discontinuation of the survey, the extent to which early career teachers feel prepared to teach EAL children post-pandemic is unknown. However, the findings of this study suggest this feeling of ill-preparation may continue long into the profession. More specialist EAL teachers, and more support more generally within the school is an essential resource teachers want to help children 'catch-up' post Covid-19 (Demie *et al.* 2022). Effective professional development provision for school staff to create within-school 'specialists' is one way in which this could be achieved. Professional development around multilingual teaching practices is recommended as an area of research and development in the UK.

Table 6. Barriers to additional support teachers ranked from greatest to smallest.

	Median	Mode	SD
Funding	1	1	0.42
Lack of knowledge/training	3	3	1.48
Class Size	3	5	1.27
Workload	4	4	0.92
Staffing	4	4	0.93

This should also be used for teachers to reflect on their own practice over time, as even with lengthy development and training, some teachers fail to use multilingual teaching strategies they have previously been taught (Lorenz *et al.* 2021).

After round two, funding was established to be a major barrier to teachers' ability to implement support for EAL children. This result remained stable in round three, giving strong validity to the outcome. Funding continues to be an issue in English schools. In 2011, the government stopped the Ethnic Minority Achievement Grant (EMAG), and funds were combined into the Direct Schools Grant. The EMAG was distributed to local authorities incrementally based on the number of EAL learners in the communities, the number of pupils from underachieving ethnic minorities and the number of pupils given free school meals (used as a proxy indicator for poverty/SES). Whereas previously, the EMAG was to be spent on EAL pupils, the Direct Schools Grant gave schools freedom over how to allocate spending. Since the 2011–2012 school year, the number of local authorities who now offer no central budget for EAL has risen from 39 to 72 (Hutchinson 2018).

Teachers ranked support staff in the classroom, including bilingual support staff, as the resource they would most like to aid the achievement of EAL pupils. Bilingual support staff would clearly be a great advantage for teachers in breaking down the communication barriers between EAL children classified as 'new to English'. However, the 2011 census found that 88 additional languages are spoken in England and Wales, accounting for 8% of the population (Stokes 2013). We know from the English school census that the proportion of children with EAL is increasing yearly (Department for Education 2017, 2018b, 2019, 2022), consequently the reality of bilingual support staff in the classroom who will be able to represent the variety of languages spoken is logistically challenging. However, technology could have the potential to overcome such barriers, with online support staff being shared between schools in a local authority or school trust. While an increase of in-person support staff in the classroom, who would be able to offer additional individual tuition or small group interventions, would be beneficial to EAL pupils, it is doubtful in the current financial climate whether schools would be equipped to provide such support.

Smaller English language vocabulary and literacy skills were ranked in the top four barriers to educational achievement for children with EAL, after a lack of pedagogical knowledge and specialized staff. Thus, children's oral language and literacy skills in English were viewed as the greatest barrier to achievement at pupil level (although barriers related to teacher's knowledge and pedagogy were viewed as greater barriers). In their questionnaire of teachers, Cajkler and Hall (2009) found that more professional development about language awareness and input on how a second language is learned was wanted by teaching professionals, and more recently, some called for more EAL specialists in schools (Demie *et al.* 2022). The results of this Delphi suggest that little has changed since 2009 and teachers are still struggling to access EAL-specific training.

Vocabulary knowledge is a strong and unique predictor of reading comprehension (Landi and Ryherd 2017), a skill which is beneficial across curricular subjects and in national examinations. While weaker English vocabulary and literacy skills of EAL pupils were ranked highly as a barrier to attainment in question one, few literacy-specific instructional strategies were offered as support for pupils (question two). In fact, reading encouragement was ranked 7th out of 10 strategies, suggesting EAL pupils are not routinely encouraged to read for pleasure as a form of support in the classroom. A meta-analysis of 99 studies found that children with more exposure to print improve their comprehension, technical reading and spelling skills year on year throughout schooling (Mol and Bus 2011) and even poor readers benefited from independent reading for pleasure. It is therefore surprising that children with EAL are not routinely encouraged to read for pleasure while at school by teachers in this study. However, it could be that for new to English children, reading may be inaccessible and a lack of staff to support those newly arrived children may be a barrier.

Support that teachers would like to offer did not identify specific literacy provision; however, themes such as bilingual support staff, small group English classes, more one-to-one work and targeted interventions were identified, which may relate to language and literacy skills.

Although empirical evidence exists that language and literacy interventions can yield language growth in EAL children, evidence also clearly shows that there is a lack of such interventions taking place in the UK (Murphy and Unthiah 2015, Oxley and de Cat 2021) which may be down to a lack of knowledge surrounding how children acquire language (Cajkler and Hall 2009). As language-related interventions are often perceived as time-consuming and expensive to implement, it may be that once functional, communicative language is achieved, children are no longer taken out of class to experience intensive language-related interventions and instead are expected to 'catch up' through language exposure in class and peer to peer interaction.

4. Discussion

Using researchers' reflections, we discuss the suitability for the Delphi consensus technique in educational research. We document some of the lessons we have learned and the implications for future usage.

4.1. Researchers' reflections

We found the process of conducting a Delphi consensus study in education relatively straightforward, since much planning and timetabling had been conducted prior to the launch of the first survey. However, there were definite constraints due to the profession of our panel.

In our experience, recruitment of teachers can be challenging compared to other professions due to the time commitments of their jobs. For that reason, we opted for a smaller panel size of 30 in the first round (31 teachers had taken part in round one at the time of survey closure). However, due to attrition across rounds, which is commonplace in Delphi studies (Murry and Hammons 1995), we were left with a sample of thirteen in the final round. Teaching is widely acknowledged as a demanding profession therefore it is important to keep in mind when employing research with multiple iterations that teachers have limited time to engage. However, as the minimum number for a Delphi panel generally is considered to be 10 expert participants (Cochran 1983), we felt that 13 final participants were still justifiable to give an impression of our research questions. We do however acknowledge that the array of experiences by teaching professionals around England will differ significantly and 13 teachers in the final sample should not be used to generalize about the perceptions of all teachers.

Another consideration to avoid attrition is the timing of, and length of time between, rounds of the Delphi. Our study left two weeks between each round, in order to aid participants' memories of prior rounds; however, we did not take into account busy times of the school year, or school holidays. Although this may be difficult to wholly avoid due to different school calendars, times of national exams or national holiday times such as the Easter or Christmas break should be avoided if possible when time between iterations is so tight.

Aside from attrition, leaving two weeks between the first and second rounds of a Delphi is also time-consuming for the researcher, if using a traditional method with open questions in the first round. In our experience, 2 weeks was long enough to carry out a thematic analysis of 31 responses; however, it was carefully planned so that the main author could dedicate a large period of time for analysis and a meeting was pre-planned with the last author to finalize themes before being sent back out to the panel.

We opted to keep all rounds online, in order to make completion of each survey as quick and efficient as possible for participants. Previous Delphi consensus studies in health research have seen panels come together in the final round to define final priorities; however, this is less likely to be able to be implemented successfully in the education context, where teachers will not have the flexibility to leave their place of work during the working day. Consequently, to implement the technique in this manner we would have to rely upon asking teachers to travel during their annual leave or on an evening, which has ethical implications, and would most likely result in a

greater rate of attrition. It would not have been possible during our study as teacher locations were spread across England, which would further constrain participants' time if long journeys to the workshop site were factored in. If using an in-person workshop method for a Delphi in educational research, it may be that participants have to be from one location, which may not create a representative sample of educational contexts across the country. For example, in our EAL study, priorities may be different between diverse urban areas with high numbers of EAL pupils and rural locations where there may be fewer EAL children and teachers with less experience in teaching multilingual children.

4.2. Limitations

While we recognize the importance of researcher reflections on the implementation of a novel method in educational research, we are aware this only provides one perspective. Due to the already lengthy commitment that teachers had made, we did not want to overburden our panel by asking them to reflect on their participation in the process. In future, it would be useful to have user perspectives to understand more about the feasibility of using the Delphi consensus method in educational contexts. In addition, we acknowledge that educational settings across the UK vary considerably in terms of pupil intake. Some schools will have a larger provision for EAL children including specialist support staff, may have been serving multilingual communities for many years and be well-resourced to do so. Other schools may be adjusting to an intake of multilingual pupils for the first time, as a result of global events such as war. In such circumstances, it is worth questioning the worth of using a consensus technique such as a Delphi, when context could drastically alter teacher's experiences and perceptions. In this case, the merit of creating a consensus when needs may differ by setting is questionable. While the Delphi method certainly has merit in educational contexts, it may be better served to samples of experts from similar school contexts, or to ask teachers from a range of backgrounds their experiences of more generalizable topics, such as policy.

As mentioned previously, the Delphi study did suffer from attrition between rounds, which, although expected, did limit the pool of experts from whom we were seeking consensus. This may have altered the characteristics of the panel, and consequently, the priorities identified. However, when analysing these characteristics, we found no great difference across attritors. For example, there was not a larger proportion of early career teachers who dropped out compared to those with more years' service. Although the mean years of service did increase slightly from nine to eleven years from rounds one to three, the range remained stable (0.5–30). We, therefore, believe that our original intent of over recruiting was worthwhile in ensuring our sample was still representative at round three.

5. Conclusion

We have outlined here how the Delphi consensus method can be used as a first step in participatory educational research. While there are important considerations to take into account when engaging with educational professionals using this technique, the Delphi method proves useful in understanding teachers' perceptions on key issues. It fosters a collaborative environment between teachers and researchers, providing an opportunity to uncover key research priorities identified by teachers. This collaboration enriches the academic dialogue, paving the way for more grounded and effective educational research and policy development. Delphi studies have great potential to enable stakeholder engagement in educational research. A Delphi study can underpin the next stages of a participatory framework to effectively translate the priorities into meaningful research. In the example discussed in this paper, there is potential to develop the ideas identified by the Delphi study, using the next stages in participatory research. Ultimately, this approach forms the first step in co-producing impactful interventions that support the educational attainment of children with English as an Additional Language.

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