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To cite this article: Judy Sayers, Gosia Marschall, Jöran Petersson & Paul Andrews (2019): English and Swedish teachers' perspectives on the role of parents in year one children's learning of number: manifestations of culturally-conditioned norms, *Early Child Development and Care*, DOI: [10.1080/03004430.2019.1646741](https://doi.org/10.1080/03004430.2019.1646741)

To link to this article: <https://doi.org/10.1080/03004430.2019.1646741>



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Published online: 24 Jul 2019.



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# English and Swedish teachers' perspectives on the role of parents in year one children's learning of number: manifestations of culturally-conditioned norms

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## ABSTRACT

This paper presents an exploratory study of English and Swedish teachers' perspectives on the role of parents in year one children's learning of number. Drawing on the results of semi-structured interviews, data from each cohort were analysed independently to ensure the cultural integrity of any response categories and the results of this process compared. Two broad themes were identified concerning implicit and explicit forms of parental involvement. The former, manifested similarly across the two cohorts, concerned the importance of parents presenting children with positive attitudes towards mathematics. The latter, incorporating three comparable subthemes, focused on the creation of number-rich home environments, home-school communication and parents' role in the completion of homework. All three subthemes differentiated the cohorts in ways that highlighted teachers' culturally situated perspective on teaching and learning. Some implications are discussed, particularly with respect to the challenge this study poses for developers of cross-cultural survey instruments.

## ARTICLE HISTORY

Received 6 June 2019  
Accepted 18 July 2019

## KEYWORDS

Parental involvement; year one children; Sweden; England; number; teacher interviews

## Introduction

In both England and Sweden, the sites of the research reported here, schools and parents are mandated to collaborate on the support of children's learning. For example, the English expectation is that schools should attend to 'positive relationships with parents, the quality of communications, reporting to parents on progress, and the mechanisms for helping parents to support their children's learning' (Goodall & Vorhaus, 2011; p. 16). In similar vein, highlighting an expectation of reciprocal roles and responsibilities, whereby 'parental involvement and good parenthood are closely connected' (Wingard & Forsberg, 2009, p. 1578), Swedish schools should create collaborative partnerships between themselves and parents (Forsberg, 2007; Åkerström, Aytar & Brunnberg, 2015). The manifestations of these expectations, nominally at least, appear equally similar. On the one hand, English schools should provide parents with clear guidance on and support for their involvement (Department for Children, Schools and Families, 2007) that encompass various parental activities, 'including learning at home, school-home and home-school communication, in-school activities, decision making ... and collaboration with the community' (Goodall & Vorhaus, 2011, p. 86). On the other hand, Swedish schools are expected to communicate with the home by means of regular letters (Forsberg, 2007),

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with parents and teachers expected to participate in children's regular development conversations (Skolverket, 2011) as part of the school-to-home and home-to-school communication about school programmes and students' progress' (Niia, Almqvist, Brunnberg & Granlund, 2015). In addition, parents are expected to involve themselves with school advisory boards and volunteer to help with reading or other school-based activities (Wingard & Forsberg, 2009).

In both contexts can be found barriers to parental involvement. In England, even though they concede that parents are children's first educators, teachers position themselves as the cooperative and supportive professional against the deficient parent (Sims-Schouten, 2016). That is, despite school's required communications to parents, mismatches arise between what parental involvement means to participants (Harris & Goodall, 2008), with many practices valued by parents going unacknowledged by schools (Conteh & Kawashima, 2008). Moreover, some English parents, by mediating schools' communications through the lenses of their own childhood experiences, may compromise teachers' goals (O'Toole & de Abreu, 2005), while others, particularly those of Bangladeshi or Pakistani origin, are negatively construed as 'hard to reach' (Crozier & Davies, 2007). In similar vein, the relationship between Swedish teachers and parents is rarely equal due to teachers positioning 'themselves as experts ... prescribing in detail how parents should help their children' (Forsberg, 2007, 286). Moreover, many parents, particularly those from minority groups, experience barriers to their engagement with schools due to a lack of social and cultural capital and teachers' historical distrust of parents as adequate socialization agents (Dahlsted, 2009; Björk & Browne-Ferrigno, 2016).

Despite these apparent similarities there are differences. In England, schools are now drawing-up contracts with parents to ensure the fulfilment of these legal expectations (Edwards & Alldred, 2000). The satisfaction of such expectations form part of the schools' inspection framework, to the extent that the highest grade can only be awarded to schools that have demonstrated that they support children's learning through their engagement with parents (Ofsted, 2015). By way of contrast, such practices are unknown in Sweden, where it is widely accepted that parents have a unique knowledge of their children. Moreover, it has also been accepted for more than 20 years, that even though parents have

an obvious right to participate in and take responsibility for their children's upbringing, their lives and their activities, there is a clear presupposition of a collaboration between home and school throughout their school years. (Skolkommittén, 1997, p. 113)

Such differences can be seen in the use of the word 'parent' in the two countries' curricula; the English national curriculum (Department for Education, 2014) makes no reference to parents in respect of their school-related rights, responsibilities and relationships, while the Swedish includes nine (Skolverket, 2011).

## The nature and impact of parental involvement

Broadly speaking, parental, or carer, involvement can be construed as parents, or carers, active or practical investment in or dedication of resources to their children's education (Castro, Expósito-Casas, López-Martín, Lizasoain, Navarro-Asencio & Gaviria, 2015). However, conceptualisations of the construct have created a fragmented field, with some studies adopting broad and inclusive constructs and others narrow and exclusive (Wilder, 2014). This distinction can be clearly seen in the emphases of different meta-analyses undertaken over the past two decades. On the one hand, Fan and Chen's (2001) and Jeynes's (2007) studies focused on broad behaviours concerning parents' general involvement, communication with children on school issues, engagement with homework, education expectations, reading with children, participation in school activities, and family type. On the other hand, other meta-analysts have focused on the impact of particular parental involvement behaviours on achievement, like support for homework completion (Patall, Cooper & Robinson, 2008), father's involvement (Jeynes, 2015), parent tutoring (Erion, 2006) or reading interventions (Sénéchal & Young, 2008). Despite this conceptual variation, research has typically shown parental involvement to have a positive impact on children's achievement in general (Skwarchuk,

Sowinski, LeFevre, 2014; Kleemans, Peeters, Segers, and Verhoeven, 2012; Jeynes, 2016), their motivation and self-efficacy (Pomerantz, Moorman, Litwack, 2007; Fan & Williams, 2010), attendance (Simon, 2001), behaviour (Daniel, Wang, Berthelsen, 2016) and subject anxiety (Vukovic, Roberts, Wright, 2013).

Methodologically, research on parental involvement in children's learning typically exploits statistical analyses of either extant data or targeted surveys to examine the influence of particular parental behaviours on American children's achievement. Such studies have examined parental involvement from the perspective of the child (Choi, Chang, Kim & Reio, 2015), the parent (Vukovic, Roberts & Green Wright, 2013), the teacher (Sheldon & Epstein, 2005) and combinations of these (Cai, 2003). This variation has led some researchers to construe parental involvement as a messy construct (Pomerantz et al., 2007; Ross, 2016), not least because researchers have tailored definitions to fit their particular studies (Pomerantz et al., 2007), with research becoming so top-down that what parents and teachers do becomes invisible (Lawson, 2003). Also, many of the concepts 'correspond to behaviors that can be promoted ... (while others) are effects associated with third variables, which are the real causes, giving a spurious spin to the apparent correlation between parental involvement and educational achievement' (Castro et al., 2015, p. 34).

While studies of parental involvement in the first year of schooling, particularly with respect to mathematics, are rare, a small number of studies have examined the relationship between parental involvement and mathematics learning in the kindergartens of Canada (Skwarchuk, Sowinski & LeFevre, 2014), the United States (Missall, Hojnoski, Caskie & Repasky, 2015) and European countries like Greece (Manolitsis, Georgiou & Tziraki, 2013) and the Netherlands (Kleemans, Peeters, Segers & Verhoeven, 2012). Of these studies, exploratory approaches are exceptionally rare. Finally, comparative studies, also rare, typically fall into two forms. The first examines the relationship between parental involvement and mathematics achievement in different subpopulations of the same country (Dandy & Nettelbeck, 2002; Huntsinger & Jose, 2009; Phillipson & Phillipson, 2007). The second is explicitly cross-national and typically compares parental involvement practices and mathematics achievement in an Anglophone country with those of a country identified as more successful on international tests of achievement (Cai, 2003; Cao, Bishop & Forgasz, 2006; Zhao & Akiba, 2009). However, with the exception of a handful of qualitative studies, such as Wingard and Forsberg's (2009) case study comparisons of the ways in which American and Swedish parents support their children's completion of homework, the typical comparative study also draws on statistical analyses of large data sets. In short, while research into the role of parents in support of their children's learning is clearly a growing field, qualitative studies are rare and qualitative comparative studies rarer still. Moreover, the top-down operationalization of the constructs used in survey studies may mask cultural differences in the ways in which parental involvement is construed and enacted. Indeed, as Lareau (1996, p. 59) writes,

I have no doubt that parents check off these answers in survey research. The meaning; however, differs radically. The same phrase 'contacting the school, checking homework, helping with homework, and talking to teachers' appears to have different meaning to the parents.

### ***Parental involvement and the learning of number***

The relationship between parental involvement and mathematical learning seems uncertain, with some studies showing parental involvement to benefit the development of children's early numeracy skills (Kleemans et al., 2012) and other not (Missall et al., 2015). Moreover, there remains a problem internationally that even when parents wish to support their children's mathematical learning, their actions are greatly influenced by their prior experiences of the subject (O'Toole & de Abreu, 2005). More generally, in relation to primary-aged children's learning of number, parental involvement has been categorized as either formal or informal (LeFevre, Skwarchuk, Smith-Chant, Fast, Kamawar & Bisanz, 2009; Huntsinger, Jose, & Luo, 2016; Skwarchuk et al., 2014), with each predicting

different mathematics-related learning outcomes. Formal practices, providing opportunities to practice school-type mathematics, typically involve activities such as counting objects, practising number names or writing number symbols and have been shown not only to influence positively children's ability to count, recognize numbers and understand a symbolic number system (Huntsinger et al., 2016; LeFevre et al., 2009; Skwarchuk et al., 2014) but also facilitate later mathematics achievement (Manolitsis et al., 2013; Niklas, Cohrssen & Tayler, 2016). Informal practices, in which the learning of number takes place indirectly and include activities such as playing card or board games, carpentry, cooking or shopping (LeFevre et al., 2009), have been implicated in children's learning of mathematics in general (Huntsinger et al., 2016) and arithmetic in particular (Skwarchuk et al., 2014).

### ***Teachers' perspectives on parental involvement***

As indicated above, and despite political rhetoric, both English and Swedish teachers have been found to position themselves as experts in ways that impede parents' involvement with their children's school (Sims-Schouten, 2016; Forsberg, 2007), problems that are not uncommon internationally. For example, Israeli teachers are suspicious of and feel professionally threatened by the involvement of parents in children's education (Addi-Racah & Arviv-Elyashiv, 2008), Norwegian teachers assert that they, not parents, are the professionals (Bæck, 2010), while in Hong Kong, teachers subtly subvert parent-school relationships in order to preserve both their status and their authority (Ng & Yuen, 2015). Such matters are exacerbated when parents' ethnicity differs from that of the majority, where teachers may position minority parents within a deficit discourse (Kim, 2009) and treat their students as less academically and socially adaptive than their majority peers (Thompson, Herman, Stormont, Reinke & Webster-Stratton, 2017; Ng & Yuen, 2015).

Thus, since it is teachers who are typically charged with initiating home-school liaison activities, understanding how teachers construe parental involvement is essential if systemic desires to facilitate parental involvement are to be meaningfully realized. Interestingly, our trawl of the literature found approximately six times as many studies focused on parents' perspectives on parental involvement as teachers'. In other words, the lack of research on teachers' views seems to indicate an assumption that teachers are, *ab initio*, positively disposed to engaging with the parents of the children whom they teach, despite evidence to the contrary (Souto-Manning & Swick, 2006). In this paper, and acknowledging the issues raised above, we present a comparative exploratory interview study of English and Swedish teachers' perspectives on parental involvement in the number-related learning of year one children.

### **The current study**

This paper draws on semi-structured, exploratory, interviews with 19 year one teachers in England (one failed to materialize) and 20 in Sweden. In relation to earlier comparative studies, this study is unique in the neither of the involved countries has been construed as successful on international studies of achievement. Twenty interviews in each country was considered to be sufficient to achieve thematic saturation, the point after which no new ideas were generated by their analyses (O'Reilly & Parker, 2013). In both countries, teachers were contacted by project colleagues and, along with details of the project and what participation would entail, invited to participate. Despite being self-selected, participating teachers formed representative samples in terms of gender, age, geographical diversity, education and years of experience working with year one children. With appropriate consents, interviews were video-recorded to facilitate later transcription, although one teacher requested that the interview should be audio recorded only. Confidentiality, anonymity and the right to withdraw were assured and pseudonyms have been used throughout. The interview schedule, broadly focused on the teaching of number to year one children, comprised a number of open questions, of which one explored teachers' views on the role of parents in children's learning of number. Over a period of several months, interviews were undertaken

simultaneously in the two countries. Typically lasting around 50 min, they were conducted in participants' mother tongues and at places of their choosing. On completion, they were transcribed, participant-verified and pseudonyms agreed.

In order to ensure the integrity of any culture-specific perspectives, the two data sets were analysed independently before any comparisons were made. For each data set the following describes the processes employed by two individuals working independently. First, each transcript was read and re-read. Second, episodes in which teachers discussed any form of parental involvement were identified. Third, following the constant comparison analytical traditions of the grounded theorists, categories of responses were identified and, with each new category, previously read transcripts were re-read to determine whether the new category applied to them also. Fourth, the two analysts for each data set met to agree their categories before arranging them into broader themes. Finally, the resultant broad themes from each country were compared and contrasted. This process, drawing effectively on four independent analyses, resulted in the set of general themes used to frame this paper. Importantly, no Swedish data were translated until excerpts selected for inclusion in the report had been identified. At this point, they were translated into English, including transforming Swedish idioms into forms recognizable to English-speakers.

## Results

The analytical process described above yielded two dominant themes with respect to teachers' perspectives on parental involvement, which we describe as *implicit involvement* and *explicit involvement* (Crozier & Davies, 2007). In the context of this study, implicit parental involvement relates to those parental beliefs and behaviours that influence children's learning in subtle and largely hidden ways. These, as we show, can have either beneficial or detrimental effects on both children's learning and attitudes. Explicit involvement involves, typically, actions taken by parents with the expressed intention of facilitating their children's learning in general and mathematics in particular. In the following, we present each of these broad themes, framed separately by the English and Swedish data.

### *Implicit parental involvement*

All teachers, English and Swedish, indicated that parents have a responsibility to act in ways that do not impact negatively on their children's engagement with mathematics. That is, parents have a responsibility, through the home-life environment they encourage, to facilitate children's acquisition of positive mathematics-related behaviours, beliefs and attitudes.

#### *Implicit parental involvement: English teachers*

Most English teachers offered comments resonant with Christina's view that because parents are children's 'first educators', learning starts at home. Moreover, from the particular perspective of mathematics, all English teachers discussed how mathematics permeates, in implicit and explicit ways, children's everyday life experiences, a view typified in Mary's comment that mathematics 'is an everyday thing, maths is everywhere'. This awareness of the ubiquity of mathematics underpinned a view that the learning of mathematics takes place everywhere, both inside and outside the home. That being said, most teachers were clear that the ways in which parents behave towards and talk about mathematics lay foundations for how children develop their understanding of and attitudes towards the subject. In this respect, several teachers spoke of how parents' own childhood experiences shaped their behaviours towards mathematics, mathematics learning and their perceptions of their competence with respect to the subject. Such views were reflected in, for example, Michael's comment that, 'if you (a parent) didn't like maths as a child, then you probably haven't grown up to appreciate maths as a subject'. Such experiences, at least as far as these teachers were concerned, frequently led to parents conveying negative attitudes towards mathematics to their children. For

example, Anna spoke of how parents would say things like, 'Oh I hate maths', remarks which, according to Michael, 'filter down to the children' and influence the ways they perceive themselves as learners of mathematics and the attitudes they develop towards it. In this respect, Mary's comment was typical,

I think quite often you have children that just give up. They don't persevere. They lose that perseverance because, 'Well, I don't have to. It's alright (...) Mummy or Daddy isn't good at maths, so it's OK for me not to be good at maths'.

Indeed, several teachers asserted that such parents believe that their own mathematical failures excuse similar failures on the part of their children. For example, Louise commented that 'Sometimes parents feedback and say "Oh, I was never very good at maths, so that's why they're (the children) not"'. In other words, teachers spoke of parents genuinely believing a child's underperformance in mathematics to be hereditary. On the positive side and wishing, as Anna said, to 'avoid these children growing up like that', most teachers discussed the importance of parents expressing positive attitudes towards mathematics, as exemplified by Sarah's assertion that 'even if they don't have their own positive opinion on maths, they can still enforce it on their children'.

### *Implicit parental involvement: Swedish teachers*

Most Swedish teachers spoke in ways indicating that parents are their children's role models, as evidenced in Matilda's comment that 'parents are of course those whom children mimic most in their early years'. From the perspective of school mathematics, Irene's view that 'the main thing is that you (the parent) show that the school is important (and that) maths is important' was not atypical, as was Susanne's view that children should see that 'maths doesn't only happen in school, but also at home'. That being said, teachers were adamant that home-based experiences should not be negative, as seen in Susanne's comment that 'it is also about their (parents') own views of what mathematics is, their attitude to the subject'.

Indeed, all Swedish teachers highlighted the impact of inappropriate or poor parental attitudes towards mathematics, arguing that negative attitudes create obstacles to children's learning. In this respect, Matilda's comments were typical. She said

the greatest hindrance is that they (parents) did not acquire a positive image of mathematics from their own schooling; they find it difficult or they think it's not enjoyable. In mathematics, this is usually the main culprit.

She continued, 'it is inappropriate (for parents) to go in with the attitude that this (mathematics) will just be bad' they should 'let them form their own opinion'. Such perspectives were echoed by, for example, Julia, who added that once children respond to their parents' negative attitudes a 'negative spiral' is created from which is difficult to break out. The role of parents, she added, is to help find ways to 'turn it around to get a positive spiral'. In other words, as commented by Marita, parents could start by simply refraining from using negative expressions such as 'I was not good at math' and employing more a positive attitude by asking, for example, 'What can we do? How can we work with this at home?'.

### *Explicit parental involvement*

While teachers in both countries spoke about the ways in which parents should encourage positive attitudes towards mathematics, typically by subtly ensuring their children's awareness of the ubiquity of number in the world around them, many also spoke about particular activities in which the explicit intention is to encourage children's facility with numbers. In this respect, the independently conducted analyses yielded three key categories of explicit parental involvement common to both cohorts. The first concerned the creation of a number-friendly home environment, the second home-school communications and the third parental involvement in children's homework.



### *The creation of number-rich homes: English teachers*

With respect to the creation of number-friendly homes, a collective understanding emerged that parents should subtly show their children that numbers are ever-present in their lives. By way of justification, Kate commented that ‘those (children) that feel comfortable with numbers have grown up with number; it’s always been a part of what they do’. Most teachers spoke of this being achieved through frequent everyday use of simple mathematical language, as evident in Mary’s comment that it begins when children ‘start to learn to walk’ and the use of simple phrases like, ‘one more step, one more’. The different ways in which teachers spoke of these informal but positive parental behaviours could be categorized in four broad ways. Firstly, teachers spoke of how parents can support their children’s counting competence, including, for example, Michael’s playing games and helping children, ‘keep the score’, Sarah’s ‘singing counting songs’, Anna’s counting of ‘the trees as you walk down the road’ and Peter’s ‘how many presents did you get for your birthday?’ Secondly, linked explicitly to number recognition, teachers spoke of outdoor activities that as noted by Peter, expose children to ‘the fact that numbers exist’. These included Anna’s and Kate’s reference to looking at house numbers, Jenny’s bus numbers and Sarah’s number plates and speed signs. Thirdly, teachers spoke of general home activities such as cooking, and Anna’s ‘pairing up the socks in two and counting them’. Finally, teachers spoke of how shopping can support the learning of different aspects of number, as in Kate’s comment concerning ‘adding things up when they go shopping’ and Anna’s mentioning the development of the ‘concept of money’.

### *The creation of number-rich homes: Swedish teachers*

The creation of a number-friendly home environment drew on the utterances of a third of the Swedish teachers, typically focused on broad principles relating to the every-day existence of number in the home. For example, Ellinor, representing the views of other colleagues, commented that it is ‘about everyday life (and) it doesn’t have to be more complicated than that’. She went on to speak about the importance of parents engaging their children with the sharing of an apple and the use of phrases like ‘well, how can we share it? Look, we got a *half* each. (...) And now we are three sharing, how should we do that? (...) Then we get a *third* each’. That being said, unlike their English peers, few Swedish teachers offered concrete examples of home-based activities believed to facilitate children’s learning of number, a rarity that seemed to stem from teachers seeing a clear division between their and parents’ responsibilities in supporting children’s learning. For example, Susanne commented that parents’ main role concerns parenting and home, going on to say that parents ‘are not teachers and they are not supposed to be. They’re supposed to be parents’.

### *Home-school communication: English teachers*

With respect to home-school communications, teachers typically spoke of the role of parents in meeting school-set targets. For example, Anna commented that,

We’ve got parents’ evening in two weeks. So then we’ll be, sort of, talking to parents about things ... whether there are certain things that, you know, they need to work on ... And they’ll have targets. And depending on the needs of the child, it’s often a maths target.

In similar vein, Gemma said that ‘We also do target-sharing meetings where the parents come in, erm, and see the books with the children and being able to talk to the teachers. We set individual targets for each child, erm, for both literacy and maths’.

For other teachers, the process went beyond formally planned consultation meetings. In this respect, for example, Amanda’s comments were illuminating and not atypical. She said, in reference to her previous class,

last year we had quite a few children who really, really struggled with maths ... We had to get a lot of the parents in and say ‘You need to do extra with them at home’ ... We gave them specific things to work on ... it did make a huge difference ... But it is getting the parents to understand what you’re teaching and actually at the beginning



of the year we give them a sheet with all the targets on and say 'This is what we're focusing on now, this is what we're focusing on next'.

### *Home-school communication: Swedish teachers*

In terms of home-school communications, most teachers spoke of weekly letters sent home, as in Julia's comment that 'I write in the weekly letter what we are doing in mathematics, so they (parents) can prepare them (their children) for talking about bigger than and less than and such things'. In similar vein, Wilma said that 'we always write in the weekly paper what we are working on right now', adding that 'we have talked a lot about the importance of the resource that parents are' and their role in supporting children's practice, 'because the more they practice the better it will be'. Others spoke of how such matters were conducted electronically, as reflected in Matilda's comment that 'we have blogs in all classes and outline the concepts we work with on the blogs' and Marita's 'We try to write on the blog what topic we are dealing with', before adding that

We have such a translation button on the blog so they (parents with limited understanding of Swedish) can read ... and then we usually write words in focus this week: fewer, more, smaller than, bigger than and so and so they can translate. Most languages are available.

In similar vein, most teachers commented about the twice-yearly development conversations (utvecklingssamtal) whereby teachers, children and usually parents meet to discuss children's educational and social progress. In this respect, teachers often saw the meeting as an additional opportunity for them to inform parents about what is happening in school, as seen in Wilma's comment that during the meetings

I take all the material ... so that we can have it around us so that one can quickly ... show (parents) what we are working with. So, when children go home and tell them what they've worked with, they (parents) know.

Mostly, though, teachers spoke of how they use the meeting and its explicit focus on child participation, to offer parents support. For example, Mona commented that:

We have the pupils leading the conversation, and so the pupils and I talk about what we need to practise and write it in their IUP (Individuell utvecklingsplan/individual development plan). Just now it is the numbers 0-10 ... And so I write up how it can be practised ... often through a lot of play.

### *Homework: English teachers*

The third form of explicit parental involvement, discussed by all but three English teachers, concerned the ways in which parents were expected to support the completion of their children's homework. A third of informants spoke of sending home activities intended to complement what children had experienced in school. Such activities were typically informal and required specific parental interventions, as seen in Louise's statement that 'we'll send out the homework and things where we'll say, you know, "Oh, spot shapes around your home. Which ones can you find?". You know, and lots of parents will do that'. In similar vein, Jenny commented that her children 'have homework set ... every half term ... it's ... on the class web page ... It's usually a fun piece of homework for the topic work', while Rowena added that homework is intended 'to be fun and practical and it can just be "as you're going up the stairs, count how many stairs there are", you know "count your socks or money or ...". Those kind of things'.

By way of contrast, half the English teachers spoke of how they encourage parents to support their children's rote learning of 'instant recall facts'. In several cases teachers used the acronym KIRF (key instant recall facts), here summarized by Rowena, who said, 'Parents know that we send home, we have KIRFs, which are key instant recall facts. So they have the same homework for half a term and they are encouraged to do ten minutes a day'. All teachers who mentioned KIRFs spoke of sending home one set of KIRFs each half-term or seven-week period. In this respect, Peter's

comment was typical of others. He said that ‘we send home specific KIRFs every half term (...) so they’re practising, hopefully, practising those every week with their parents’. In similar vein, two teachers spoke of similar tasks, derived from a particular student workbook, called SMIRFs. This, said Rachel, is an acronym for Space Mission Instant Recall Facts (and) goes home backwards and forwards every day with children’, something, according to Jo, that ‘parents are very much encouraged to practice’.

### *Homework: Swedish teachers*

By way of contrast, parental involvement and homework polarized the Swedish cohort. Half the cohort spoke of setting homework, with most doing so for the benefit of struggling or sick children. In this respect, typical was Lena’s comment that ‘when you have a student who has difficulty with something, then you must contact the parents and give them things ... that they can practice at home’. In such circumstances, however, these teachers seemed clear that homework should be something that children can manage without parental explanation, as reflected in Wilma’s assertion that in her school

We don’t send home things that need to be explained, because it’s we who teach, not the parents. And it’s not that we don’t believe the parents would be able to, if we asked them. But we don’t want to put that responsibility [on the homes]. It’s our responsibility.

The other half of the cohort, as reflected in Mona’s comment that ‘we have no homework at all’, did not set homework. Their reasons typically drew on principles of equity, as with Julia’s comment that while ‘it (educational opportunity) is supposed to be equal, we should all be given the same opportunities, and therefore we cannot put this on the homes’. In short, whether they set homework or not, teachers drew on notions of equity to argue for no parental involvement with school-set work.

## **Discussion**

The aim of this paper was to investigate English and Swedish teachers’ views on the role of parents in year one children’s learning of number. The results fell into two broad themes; implicit parental involvement, typically relating to parental attitudes, and explicit parental involvement encompassing various home-initiated and school-initiated practices. With respect to implicit parental involvement, both sets of teachers seemed clear that parents have great influence, both good and bad, dependent on their actions and attitudes towards number. In this regard, both cohorts spoke of parents as children’s role models with commensurate responsibilities to prevent the later development of mathematical anxiety (Vukovic et al., 2013). Thus, in accordance with earlier research, teachers believed parents should convey positive attitudes towards mathematics, even when their own experiences as mathematical learners were negative (Jeynes, 2005; LeFevre et al., 2009). In sum, both sets of teachers espoused very similar views, which, as we discuss next, was not the case with respect to explicit parental involvement.

With respect to the creation of number-rich home environments, all English teachers spoke of informal, curriculum-independent activities related to counting opportunities in the environment, playing number-rich games and undertaking domestic activities like cooking or shopping; activities implicated in young children’s learning of number (LeFevre et al., 2009; Huntsinger et al., 2016; Skwarchuk et al., 2014). Such unanimity was not the case with Swedish teachers, where a handful spoke unprompted of broad and unspecified possibilities. Even when prompted, few teachers seemed able to offer specific activities in the manner of their English peers. This apparent lack of resourcefulness, we posit, may be less about an inability to recognize home-based number-related learning opportunities than a collective belief, as expressed above by Wilma, that ‘it’s we who teach, not the parents’. In other words, home-based informal activities may be sufficiently outside the discourse of Swedish teachers as to render them functionally invisible. In sum, while English teachers expect the home to provide various informal learning opportunities to complement schools’

efforts, their Swedish colleagues saw the role of the home as less about providing specific activities than ensuring the supportive environment that would encourage the acquisition of positive attitudes. In other words, English teachers see the home as an extension of school, while their Swedish colleagues see it as separate from school.

With respect to communicative practices, and despite nominally similar expectations, there were clear differences in the perspectives of the two cohorts. On the one hand, while English teachers clearly attended to 'reporting to parents on progress, and the mechanisms for helping parents to support their children's learning' (Goodall & Vorhaus, 2011; p. 16), their focus was unequivocally located in a discourse of targets and a one-way expectation that parents will, as indicated by Amanda, 'work on this, this and this'. On the other hand, as part of their collaborative partnership with parents (Åkerström et al., 2015; Forsberg, 2007), while Swedish teachers used letters to keep parents updated on their children's progress (Niia et al., 2015), they spoke not of targets and the means of their fulfilment but the ways in which, as suggested by Wilma, 'children go home and tell them (their parents) what they've worked with'. In sum, while both cohorts spoke in ways indicative of one-way communications, the underlying messages were clearly different; communication from English teachers appeared instructive, while for Swedish teachers it appeared informative.

The role of homework in children's learning, the third category of explicit parental involvement, further distinguished teachers' narratives, with each cohort falling into two groups. On the one hand, English teachers, all of whom advocated homework, presented two distinct and largely incompatible perspectives. Around a third spoke of parents' roles in facilitating informal number-related activities, not unrelated to the creation of a number-rich home environment, while half the cohort, despite evidence of negligible effects (Jeynes, 2016), expected parents to support children's completion of formal homework tasks typically focused on rote-learned number-related facts. On the other hand, Swedish teachers found themselves split on the basis of principle. Half the cohort was clear that homework and any parental involvement in its completion was ethically problematic. The other half, for whom homework may have a place in supporting the learning of struggling children, also argued on the equity basis that any homework should be completable with no parental support. All Swedish teachers' argued that it is they, not parents, who are responsible for children's learning (Dahlstedt, 2009). In sum, English teachers presented homework, albeit in seemingly incompatible forms, as an integral part of school life, seemingly beyond question, in much the same way as the English secondary teachers in an earlier study (Thomson, Hall & Jones, 2010). By way of contrast, homework for Swedish teachers was problematic, and while no teacher described it as a sin against childhood (Gill & Schlossman, 1996), it was clear that even those who gave their pupils homework construed it as a potential threat to educational equity. Broadly speaking, the evidence indicated that while both cohorts had something to say about parental involvement in the completion of homework, the English teachers seemed to construe this role as active, while the Swedish teachers saw it as passive.

So, what messages should be inferred from the above? First, while both cohorts' espousals can be construed as addressing similarly mandated expectations, the three forms of explicit parental involvement highlight deep-seated and very different behavioural manifestations of those expectations. In this respect, English teachers' practices were based on a desire to instruct, while those of their Swedish colleagues derived from a desire to inform. In related vein, English teachers construe parents as supplementary teachers, provided they act in accordance with those instructions, while Swedish teachers argue that parents should parent and teachers teach. Second, in neither context was there evidence of parents being explicitly positioned within a discourse of deficit (Kim, 2009; Thompson, Herman, Stormont, Reinke & Webster-Stratton, 2017), although it could be argued that Swedish teachers' emphases on equity not only positions them as experts in ways that impede parental involvement (Forsberg, 2007) but enables them to keep parents at arms length in ways that protects their professional identity (Bæck, 2010). Third, despite the possible interpretation of professional protectionism, Swedish teachers operate within a largely coherent set of beliefs whereby parents are supportive but do not interfere in the teaching of their children. On the other hand,

English teachers operate within a strangely incoherent set of beliefs in which parents should simultaneously provide informal learning activities within a context of formal learning activities based on key instant recall facts to address targets. Indeed, the lack of cohesion in the one context and not the other reflects earlier findings that an expectation of too much parental involvement may ultimately be counterproductive (Pomerantz et al., 2007). Fourth, the similarity of the two cohorts' beliefs with respect to implicit parental involvement (Jeynes, 2005; LeFevre et al., 2009) highlights the need for educational systems to focus on mechanisms to help parents, irrespective of their own school experiences, to foster positive views of mathematics in their children. Fifth, the extraordinary variation described above, both within and across cultures, invites developers of survey instruments, particularly those focused on cross-cultural research, to re-examine both the definitions of their constructs and the manner of their operationalization (Lareau, 1996). Indeed, with Swedish teachers vilifying parents who encourage homework and English teachers vilifying parents who do not, the development of a meaningful instrument seems unlikely.

## Acknowledgements

The authors gratefully acknowledge the financial support of Vetenskapsrådet, project grant 2015-01066, without which the work reported in this paper would not have been possible. The team would also like to extend its gratitude to Anna Löwenhielm for her invaluable contribution to the undertaking and transcribing of the Swedish interviews.

## Disclosure statement

There are no conflicts of interest.

## Funding

This work was supported by the Swedish Research Council (Vetenskapsrådet) [grant number 2015-01066].

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