### Parental engagement in child’s learning and development

Parents are the first teachers. Even when the child begins formal schooling, parents’ role as educators remains as important as that of the school teachers. Research in Australia and overseas[[1]](#footnote-1) has shown that greater parental involvement in children’s learning and educational activities leads to better outcomes not only for the child, but for their families and communities as well.

Evidence shows that parental involvement is (Olsen & Fuller 2008):

* good for the child

Research has shown that parental involvement improves achievement regardless of socioeconomic status, ethnic background, or the parents’ education level; it improves grades and test scores, school attendance and school completion rates, increases motivation and improves self-esteem, decreases socio-emotional, mental health and behavioural problems and leads to decreased use of drugs and alcohol.

* good for the parent

Parents who are more engaged in their child’s learning spend more time with the child and are more confident in their decision-making ability and their efficacy as a parent; greater involvement also improves parents’ understanding of teachers and their jobs and of the school curriculum.

* good for teachers

Teachers feel happier if they feel supported by parents, more enthusiastic and satisfied with their job; teachers who talk with parents more often can understand their pupils’ families better, especially if they come from different cultural backgrounds.

* good for schools

Schools that engage parents are more supported and respected in the community; programs run by these schools are usually more successful.

Parental involvement can take many forms, from participation in school-based activities (such as helping with fundraising or excursions, or participating in school committees) to supporting the child at home (reading books, helping them with homework and creating an atmosphere that supports learning). The *Footprints in Time* study collects information on parental involvement in both home and school-based activities from parents, children and teachers at school.

**Involvement in home-based activities**

In almost all waves of the survey, parents were asked about the number of children’s books they had in the house. While the number of books may not seem an obvious measure of parental involvement, it provides an indication of investment the parents have been able to make into the child’s learning, and also of the child’s exposure to books and reading, together with parents reading books to the child and taking the child to a library.

In Wave 5, families were about evenly split between those who had more than 30 children’s books in the house and those who had 30 books or less (Table 20). The number of books was about the same for the older and younger cohort.

**Table 20: Number of children’s books in the house in Wave 5, percent**

| **Number of books** | **0–10** | **11–30** | **31–50** | **51 or more** | **Total (N)** |
| --- | --- | --- | --- | --- | --- |
| All respondents | 24.5 | 25.5 | 15.1 | 34.9 | 1,249 |
| Younger cohort | 24.0 | 26.2 | 15.4 | 34.5 | 722 |
| Older cohort | 25.2 | 24.5 | 14.8 | 35.5 | 527 |

Most children (about three-quarters) had someone read a book to them in the week before the Wave 5 interview. As could be expected, the proportion of families reading to the child was higher for the younger cohort (84 per cent) than for the older cohort (64 per cent).

Most parents (61.3 per cent) said that the child[[2]](#footnote-2) had been to a library in the month prior to the Wave 5 interview; however, in many cases the person accompanying them was a teacher (carer) or a friend. Just over 15 per cent of all responding parents said the child went to the library with a family member.

Parents of the older children (most of who were in Year 2 or 3 in Wave 5) were asked how often they helped the child with homework (Table 21). About one in eight parents (12.6 per cent) said that the child was not given homework at school. Most parents (69.2 per cent of all parents, or 79.2 per cent of parents whose children did get homework) were checking the child’s homework at least a few times a week.

**Table 21: Parent-reported frequency of checking or helping with homework, per cent**

| **Frequency** | **Every day** | **A few times a week** | **Once a week** | **A few times a month or less often** | **Not given homework** | **Total (N)** |
| --- | --- | --- | --- | --- | --- | --- |
| Older cohort | 45.6 | 23.6 | 13.8 | 4.4 | 12.6 | 522 |

The Wave 5 data allow some comparison of parents’ and children’s reports of homework assistance. For the first time in Wave 5, children in the older cohort were asked who they would go to if they needed help with homework (children could name more than one person). Most children said that they would go to their mother for help (68.7 per cent), and 19.6 per cent named their father (Figure 6). However, 5.5 per cent of responding children said that they had no one to help them with homework, and a further 7.1 per cent named their teacher only.[[3]](#footnote-3)

**Figure 6: Who does study child go to for help with homework? (most common responses)**



Note: Multiple response question. The percentages refer to proportions of respondents who selected each option.

**Tabular version of figure 6**

| **Relationship to child** | **Percentage** |
| --- | --- |
| Mother | 68.7 |
| Father | 19.6 |
| Teacher or carer | 12.5 |
| Sister | 7.3 |
| No one | 5.5 |
| Grandmother | 5.5 |
| Brother | 3.4 |

**Involvement in school-based activities**

The measures of parental involvement discussed so far described support for learning activities provided by parents at home. Another broad type of parental involvement is engagement directly with the school. In Wave 4, a series of questions about participation in school-based activities was asked of parents of the older cohort children. The teachers were asked a similar series of questions in Waves 2 through 5.

Figure 7 summarises responses on parental school engagement provided by parents and teachers of the older cohort of children in Wave 4. As the figure shows, only a small proportion of parents (5.5 per cent according to parents’ responses, and 13.8 per cent according to teachers’ responses) did not participate in any of the school activities. While parents’ and teachers’ responses do not always agree, this could at least in part be explained by the differences in question wording.[[4]](#footnote-4)

According to both parents and teachers, the most common forms of parental involvement in school were visits to the child’s class, direct contact with teachers, talking to parents of other children, and attending school events. Moreover, of the almost 500 parents who said they participated in school activities, most (78.8 per cent) said they participated in three or more types of activities (out of six). Similarly, teachers said that of all parents who participated, 54.2 per cent participated in three or more activities (out of eight).[[5]](#footnote-5)

**Figure 7: Parents’ and teachers’ reports on parental participation in school activities, Wave 4**



Notes: Parents’ and teachers’ responses to the same questions are shown together where possible.
\*The teacher response for this category includes ‘participated in other activities’.

**Tabular version of figure 7**

| **Activity** | **Parent** | **Teacher** |
| --- | --- | --- |
| Visited study child’s class | 79.9 | 57.8 |
| Contacted the teacher | 61.6 | 78.9 |
| Talked to parents of other children | 74.1 | Not asked |
| Attended a school event the child was in  | 80.7 | 49.5 |
| Volunteered in child’s class or excursion  | 26.3 | 14.7 |
| Attended a community meeting | Not asked | 20.2 |
| Participated in fundraising | Not asked | 9.6 |
| Helped elsewhere in the school | 22.9 | 22.9 |
| Did not participate | 5.5 | 13.8 |

In Wave 5, teachers said that almost one-half (46.7 per cent) of parents had informal discussions with the teacher a few times a month, and one-quarter (27.4 per cent) of parents had these discussions with the teacher a few times a week or every day. Just under one-quarter (23 per cent) of parents had not had a discussion with the teacher during the current school year, and in a further 2.9 per cent of cases the opportunities for discussions were not available.

According to teachers’ reports, the majority of parents (66.8 per cent for the older cohort in Wave 5) are very much or somewhat involved in the child’s learning and development. At the same time, about 18.3 per cent of responses were that the teacher did not think that the parents were involved, and in 14.9 per cent of cases the teacher did not know the parents of the child well enough to make the judgement.

**Figure 8: Parent–teacher meetings offered to and attended by parents, (teacher responses, Wave 5, older cohort)**



**Tabular version of figure 8**

| **Parent-teacher meetings offered (n=210)** | **Percentage** | **Parent’s meeting attendance if offered (n=183)** | **Percentage** |
| --- | --- | --- | --- |
| 3 or more | 17.0 | Attended all meetings | 51.0 |
| Two | 33.0 | Attended some meetings | 13.0 |
| One | 37.0 | Did not attend any meetings | 32.0 |
| None | 4.0 | No answer | 3.0 |
| No answer | 9.0 |  |  |

Teachers of the older children also said that most parents were offered at least one parent–teacher meeting during the school year of the interview (Figure 8), and one-half of parents were offered two or more meetings. In about one-half of cases where at least one meeting was offered, parents of the study children attended all meetings that were offered by the teacher; however, in 32 per cent of cases none of the meetings offered by the teacher were attended by the parents or carers of the study child.

**Relationships between parental involvement and children’s outcomes**

The previous section has shown that the parents in the *Footprints in Time* study are substantially involved in their children’s learning and development. This section will look at evidence of any relationship between parental involvement and children’s outcomes in the *Footprints in Time* data.

The three measures we use here to look at achievement are PAT Reading scores for the older cohort, and Who am I? and Renfrew scores for the younger cohort.[[6]](#footnote-6) Table 22 shows individual relationships between each outcome variable and parent involvement measure—that is, only one measure of parent involvement is considered at a time, and no other characteristics of the child or parent are taken into account.

As Table 22 demonstrates, most of the parental engagement measures collected in *Footprints in Time* are significantly related to children’s cognitive outcomes. The number of children’s books in the house is one such indicator. Children in the older cohort who have 51 or more children’s books in the house have average PAT Reading scores 14.3 points higher than children who have 10 or fewer books in the house. Similarly for children in the younger cohort, both the Who am I? and Renfrew scores increase with the number of books; children with 51 or more books at home have Renfrew scores full 10 points higher than children with 10 or fewer books.

Parent-reported frequency of checking and helping with homework does not seem to be significantly related to reading achievement (PAT Reading), except for the children who are not given homework, who have scores of 15.5 points lower compared to others. However, children who themselves report that they have no one to help them with homework have PAT Reading scores 14 points lower than if they named someone (apart from a teacher) who they would go to for help.

Reading books to children seems to be associated with improved scores for the younger cohort but not so much for the older children. Having been to a library is beneficial for the child, but the relationship differs between the three scores. There is a strong positive relationship between being taken to a library and PAT Reading and Who am I? scores, irrespective of who took the child. Going to a library without an adult relative had non-significant effect on the Renfrew score; however, if the child was taken to a library by an adult relative, this was associated with a 4.5 point increase in their Renfrew score.

Measures of involvement in school-based activities, which were collected from both parents and teachers, were converted into indexes by counting the types of activities the parents participated in at school (maximum of 6 for parent-reported activities, and 8 for teacher-reported activities). Both the parent- and teacher-reported parental involvement measures were positively related to the child’s scores—the more activities the parents participated in at school, the higher the children’s average scores. In addition, if the teachers thought that the parents of the child were somewhat or very involved in the child’s education, the children’s PAT Reading scores were 10 to 19 points higher than those of children whose parents or carers were, in teacher’s opinion, not involved in the child’s education. Finally, the more meetings with teacher the parents missed, the lower the children’s scores were.

**Table 22: Bivariate relationships between parental engagement and study child test scores (cohort as indicated)**

| **Engagement indicators** | **Wave 5 scores** |
| --- | --- |
|  | **PAT-R [older cohort]** | **Who am I? [younger cohort]** | **Renfrew [younger cohort]** |
| HOME-BASED ACTIVITIES |  |  |  |
| Parent reported: |
| Number of children’s books in the house (reference = 0–10): |
|  11–30 | 8.3\* | 2.5\*\* | 6.2\*\* |
|  31–50 | 8.3\* | 3.4\*\* | 8.2\*\* |
|  51 or more | 14.3\*\* | 3.7\*\* | 10.0\*\* |
| Parent checks homework [older cohort only] (reference = every day): |
|  A few times a week | –4.4 | – | – |
|  Once a week | –5.8 | – | – |
|  A few times a month or less often | –0.3 | – | – |
|  Not given homework | –15.5\*\* | – | – |
| Read book to the study child | –1.1 | 3.0\*\* | 3.8\*\* |
| Study child visited a library in the past month [Wave 4 for older cohort] (reference = no): |
|  Adult relative took child to a library  | 12.4\*\* | 4.0\*\* | 4.5\*\* |
|  Child went to a library but not with adult relative  (i.e., with teacher, sibling, friend, or by self)  | 9.5\*\* | 5.2\*\* | 0.5 |
| Study child reported: |
|  No one to help with homework [older cohort]^ | –14.0\*\* | – | – |
| SCHOOL-BASED ACTIVITIES  |
| Number of activities parents involved with at school: |  |  |  |
|  Parent-reported [Wave 4, older] | 1.5† | – | – |
|  Teacher-reported [Waves 4 and 5 combined] | 1.8† | 0.9\*\* | 1.4\*\* |
| Other teacher-reported measures: [Waves 4 and 5 combined, older] |
| Teacher’s overall assessment of parents’ involvement (reference = parents not involved): |
|  Somewhat involved | 10.4\* | – | – |
|  Very involved | 18.8\*\* | – | – |
|  Teacher does not know the parents enough to tell | 9.8† | – | – |
| Number of teacher–parent meetings missed  | –3.2† | – | – |
| Notes: †p<0.1; \*p<0.05; \*\*p<0.01.^ Includes if only teacher helps with homework.– Data not available for a given cohort/wave. |

**Family characteristics associated with greater parental involvement**

Greater involvement in a child’s learning and development places additional demands on the family resources, and some parents may be more constrained than others. More prosperous families may be able to afford more books for their children. Working parents, especially those who are single, may not have as many opportunities to visit school during work hours, which may make it more difficult to participate in a range of school-based activities. This section looks at how demographic and socio-economic characteristics of families are related to the level of parental engagement.

Tables 23 and 24 provide a list of findings on how selected family characteristics are related to parental involvement in the home and school-based learning activities of the children. The *Footprints in Time* data highlight several important points:

There is some evidence of locational disadvantage. Children in more remote areas have fewer books in their home and lower chances of visiting a library. Both of these may at least in part be due to lower availability of books and libraries in remote areas.

The level of parental involvement does not seem to change with the child’s age (except for parent-reported homework checking and families reading to the child, which can be expected to decline as children grow up); however, there is some evidence that parents in their 30s and 40s tend to own more children’s books and are more likely to be engaged with the school than younger or older parents. The same applies for partnered parents, compared to those without a partner in the household.

Parental education is very strongly related to involvement. Parents with a higher level of education are more likely to read to their children, take them to a library, to own more children’s books, and to participate in more activities at school.

Similarly, families with higher earnings, and those that do not draw their income solely from government benefits, are more likely to read to the children, have more children’s books, check homework more frequently, and participate in more activities at school.

**Table 23: Relationship between parental involvement and selected family characteristics: home-based activities**

| **Location:** |
| --- |
| * Families in urban areas are more likely to have more than 50 children’s books in the house (57.3 per cent), compared to 13.2 per cent of families in highly or extremely isolated areas. This may in part be due to greater availability of children’s books in more urban areas.
* Children living in moderately, highly or extremely isolated areas are less likely to be given homework than children living elsewhere (6.8 per cent versus 31.5 per cent).
* If children are given homework, it is checked at least a few times a week by 87.7 per cent of parents in urban areas, compared to 75.8 per cent of parents elsewhere.
* The greater the level of isolation, the less likely the children were to visit a library with an adult relative: this decreased from one in five families in the urban areas to less than one in 10 in the moderately, highly or extremely isolated areas.
 |
| **Demographics:** |
| * The number of children’s books in the house does not differ significantly by the study child’s age; however, parents in their 30s and 40s have more children’s books in their home than older or younger parents.
* Partnered parents tend to own more children’s books.
* The frequency of checking and helping with homework declines slightly as children grow up: if given homework, 83.2 per cent of children in Year 2 have their homework checked several times a week or every day, compared to 74.3 per cent of children in Year 3.
* The frequency of checking homework does not change significantly with parents’ age or partnered status.
* Younger children are more likely to have books read to them (84.2 per cent) than the older children (64.0 per cent).
 |
| **Parent’s education:** |
| * Parents with higher education (Bachelor degree or above) are more likely to engage in a range of home-based children’s learning activities:
	+ more likely to read books to children (88.2 per cent, compared to 74.4 per cent for everyone else)
	+ more likely to have taken the child to a library (one-third of families, compared to 13 per cent for other families)
	+ tend to own more children’s books: 73.6 per cent of parents with a Bachelor degree or higher have more than 50 children’s books in the house, and less than 2 per cent have 10 books or fewer. In contrast, among parents who did not complete Year 12, only 21.6 per cent own more than 50 books, and 37.2 per cent have 10 or fewer.
* Parent-reported frequency of checking homework does not differ significantly by the parent’s education.
* Similarly, children’s reports of having no one to help them with homework do not vary significantly by parent’s education level (this may be due to the small number of children who report having no help).
 |
| **Socio-economic position of the family:** |
| * Children in families whose only source of income is government benefits are more disadvantaged compared to families that receive wages or salaries:
	+ fewer children’s books in the house: one-quarter (24.7 per cent) of families who receive only benefits own more than 50 children’s books, compared to 43.5 per cent of families that receive wages or salaries
	+ more likely to have no one to help them with homework, although the difference is not big (16.3 per cent versus 10.2 per cent)
	+ slightly less likely to have an adult relative take them to a library (11.7 per cent, as opposed to just under 18 per cent of families who receive wages and salaries).
* Families with a weekly income below $400 are two times less likely to own more than 50 children’s books compared to families with a weekly income of $1,000 or more (23.5 versus 52.3 per cent).
* Parents in higher-income families tend to help with homework more frequently, while families with low incomes are more likely to say that the children are not given homework. Children in lower income families are also more likely to say they have no one to help with homework.
* Families with weekly incomes of $1,000 or more are more likely to have read a book to the child in the past week (79.4 per cent), compared to families on incomes less than $400 a week (69.1 per cent); however, the proportions are roughly the same for all families receiving $400 or more per week, at about 77 per cent.
 |

**Table 24: Relationship between parental involvement and selected family characteristics: school-based activities**

| **Parent report of involvement in school (Wave 4)** | Parental report of involvement in school-based activities increases with parent’s education level.Remoteness is not significantly related to parental involvement, except in the areas of low isolation, where parents tend to be less involved than in other areas. | Parents in their 30s are likely to participate in more school activities than parents of other ages, and partnered parents tend to participate in more activities than unpartnered parents.Parents in higher-income families ($800 a week or more) report participating in more school activities. |
| --- | --- | --- |
| **Teacher report of parental involvement in school (Wave 5)** | Teacher-reported parental involvement in school-based activities is significantly greater for parents with Bachelor degree or higher compared to any other education level.Teacher-reported parental involvement decreases in the more remote areas. | Parents in their 30s and 40s participate in more school activities than parents of other ages, and partnered parents tend to participate in more activities than unpartnered parents.Teachers of children from higher-income families ($800 a week or more) report higher parental participation in school activities. |
| Note: Parental involvement in this table is measured as the number of activities parents were involved in at school. |

Since certain parent and family characteristics are associated with greater levels of involvement in the schooling and educational activities of the child, it is unclear whether parental involvement is in itself an important factor for improving the child’s outcomes, or whether the apparent positive effect of involvement is due to the demographic and socio-economic characteristics of the family. The next section will attempt to resolve this question.

**Effect of family characteristics on the relationship between parental involvement and child outcomes**

One way to disentangle the relationship between family characteristics, parental involvement and child outcomes is to estimate a multivariate regression model of child outcomes controlling for family characteristics together with all the measures of parental involvement. Such a model would also take into account that parental engagement is likely to occur in many shapes or forms, and that families that are more engaged in one way are likely to be involved in other ways as well.

Table 25 provides results from a multivariate regression model that accounts for all parental involvement measures simultaneously, plus includes additional controls for the child, parent and family characteristics. These additional controls include study child’s sex, their Aboriginal or Torres Strait Islander status, age in months, and whether their dominant language is Indigenous, as well as the age, highest education level and partnered status of primary carer, source(s) of family income, amount of weekly family income and IRISEO decile.[[7]](#footnote-7)

A number of parental involvement measures retain their strong relationship with child’s achievement scores, although as can be expected, taking account of child and family characteristics reduces their significance and magnitude. For the older cohort, the PAT-R score is still significantly higher for children who had visited a library (with a parent or someone else), and lower for children who say that no one helps them with homework. The number of children’s books in the house is related (albeit not very strongly) to higher scores, and teacher’s assessment of parents as not being involved in the child’s education is associated with lower scores. Daily checking of homework, as well as parent-and teacher-reported indexes of parental involvement in school activities were found not to be significant.

For the younger cohort the number of children’s books in the house is associated with higher scores, especially the Renfrew score (which is about 5 points higher for children who have 31 or more books in their home, compared to children who have 10 or fewer). Reading books to children and taking them to a library, as well as the teacher-reported index of parental involvement at school are also positively related to Who am I? test scores.

**Table 25: Relationships between parental engagement and study child test scores—results from multivariate models (cohort as indicated)**

| **Parental engagement activity** | **Wave 5 scores** |
| --- | --- |
|  | **PAT-R [older cohort]** | **Who am I? [younger cohort]** | **Renfrew [younger cohort]** |
| Home-based activities |
| Number of children’s books in the house (reference = 0–10): |
|  11–30 | 3.4 | 0.6 | 2.7\*\* |
|  31–50 | 3.2 | 1.6† | 4.8\*\* |
|  51 or more | 7.3† | 1.6† | 5.1\*\* |
| Parent checks homework every day [older cohort] | 4.6 | – | – |
| Child not given homework [older cohort] | 0.6 | – | – |
| Someone read a book to the study child in the past week | –1.8 | 1.8\* | 1.1 |
| Adult relative took child to a library^ | 12.3\* | 0.9 | 1.3 |
| Child went to a library, but not with adult relative^  | 9.4\* | 2.3\*\* | –1.0 |
| No one to help child with homework [older cohort]^^ | –10.7\* | – | – |
| School-based activities |
| Number of parent-reported of activities [Wave 4, older cohort] | –0.1 | – | – |
| Number of teacher-reported activities [Waves 4 and 5 combined] | –0.8 | 0.4? | 0.0 |
| Teacher thinks parents are not involved [older cohort] | –10.0† | – | – |
| Number of observations | 358 | 587 | 620 |
| Adjusted R2 | 0.091 | 0.412 | 0.353 |
| Note: † p<0.1; \*p<0.05; \*\*p<0.01.^ Wave 4 for older cohort. ^^ Includes if only teacher helps with homework.– Data not available for a given cohort/wave. |

It needs to be noted that although the above analysis shows significant positive relationship between parents’ involvement and children’s academic achievement, the link is not necessarily direct or causal. It is possible that other key characteristics of children and their families (observed or unobserved) play a role. For instance, if parents of children with higher intellectual abilities are more likely to invest in the further development of their children by participating more actively in their learning, ordinary regression analysis like the one above will overestimate the impact of parental involvement on children’s outcomes. If, on the other hand, parents of children who are struggling in their studies are more likely to be involved in their children’s learning activities, ordinary analysis will underestimate the effect of parental involvement on the scores. Although the analysis presented here attempts to reduce the possible bias by taking into account background information about the child and their family, future research may address this issue more comprehensively by using different research techniques or taking advantage of added waves of data.

**Discussion**

Parental participation in children’s learning and development has been shown to have positive effects on children’s achievement and wellbeing, as evidenced in Australian and international research. However, to date no data source allowed this kind of analysis for Indigenous children in Australia. The results presented in this article confirm that parental involvement is an important determinant of a child’s performance in cognitive tests in *Footprints in Time*. Although parental involvement is shown to be related to a family’s socio-economic and demographic characteristics, controlling for these characteristics in a comprehensive model does not eliminate the effect of parents’ participation. This suggests that, as in the broader literature, parental involvement is good for the children irrespective of the family’s socio-economic status, child’s characteristics or where the children live.

For references and appendices cited in this research, please refer to the full version of the Footprints in Time: the Longitudinal Study of Indigenous Children Report from Wave 5.

1. For a summary of evidence from an Australian perspective, please see Emerson et al. 2012. For a summary of UK evidence, please refer to DCSF (2008). [↑](#footnote-ref-1)
2. In Wave 5, this question was asked of the younger cohort only. [↑](#footnote-ref-2)
3. Parents’ and children’s reports of homework help do not always agree. About one-half of children whose parents report checking or helping with homework regularly say that they have no one (or only a teacher) to help them with homework. Similarly, about half of children whose parents report that the child is not given homework say they do get help with their homework from someone in the family. This may suggest recall differences, or may be due to differences in perceptions of parents and children as to what constitutes help with homework. [↑](#footnote-ref-3)
4. Parents were asked about involvement during the current (or previous) school term, while the teachers were asked about the current year. In addition, parents talked about their own participation, while the teachers were asked about involvement of any of the study child’s parents or carers. Teachers may also not be fully aware of parental involvement for all children. [↑](#footnote-ref-4)
5. Parental involvement may be underestimated if the type of involvement is not included in the list of activities asked about. [↑](#footnote-ref-5)
6. In Wave 5, the PAT-R scores in the *Footprints in Time* data range between 17 and 130 points, the Who am I? scores range from 0 to 43 and the Renfrew scores range from 0 to 49. For more information on these measures refer to Appendix B. [↑](#footnote-ref-6)
7. To maximise available sample, variables from Wave 4 and teacher questionnaire were coded to 0 if these were not available, and additional binary variables were included as regressors to indicate the absence of Wave 4/teacher data. Therefore, the coefficients on the variables from Wave 4 and/or teacher questionnaire should be interpreted as interaction terms only applying to those children for whom the relevant information was available in the data. Both binary variables for absence of Wave 4 parent or teacher questionnaires were not significant. [↑](#footnote-ref-7)