Parents are actively involved in their children’s education at all ages, and school-based parental involvement programmes are in fashion in developed countries. Yet so far, economists have devoted little attention to determinants, levels and effects of parental involvement. This review is concerned with parental involvement for school-aged children. We comprehensively survey the economic literature on the topic, and selectively review theoretical and empirical studies outside economics.

Studies on the spontaneous involvement of parents can answer questions on why parents become involved. On the other hand, recent local and national reforms can improve our understanding of the extent to which children’s success is influenced by what parents do. We use this distinction to organize the literature and underline the open questions in each field.

Parental Involvement - Schools

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Introduction

“What makes a perfect parent?” asks chapter five of best-selling book “Freakonomics” (Levitt & Dubner [2005, p. 147-176]). Parenting, as an art and science, has a number of attractive characteristics to an economist like Steve Levitt, who sees economics as a discipline “with excellent tools for gaining answers but a serious shortage of interesting questions”. People spend huge amounts of time and money seeking for advice on parenting, as reflected by the blooming media industry devoted to the subject. Today, “parenting theories” are gaining influence into shaping childhood and education policies. Still, much of what is believed in this field rests on experts’ opinions, and there is few solid evidence on the benefits of parental investments.

Disappointingly, Levitt’s answer to how much parents matter for a child’s success is – to quote Freakonomics (Levitt & Dubner [2005, p. 175]):

“It isn’t so much a matter of what you do as a parent; it’s who you are.”

The reason is that much of what parents do can be traced back to who they are: parental attitudes are strongly shaped by their own background and environment. And in standard regression analysis, once background characteristics are factored in, a lot of the correlation of parental behavior with the child’s outcomes disappears.

If Levitt’s answer was correct, then parental involvement in school would be a waste of parental time. Yet in many countries, the general climate in the education community has pushed schools to reform, giving a more important role to parents. Plans to foster parental involvement have been already scaled up to the national level, and include in some respects the “No Child Left Behind” Act (2001) for the US, and the “Every Child Matters” Green Paper (2003) for the UK. But even before federal or national funding became available, there has been a huge development of local initiatives to enhance the dialogue between parents, local communities, and schools. What is more, researchers have taken an active part in organizing this effort in the US, where a National Network of Partnership Schools based at the John Hopkins University has been established since 1996.

In this article we review what we know about levels, determinants and effects of parental involvement in school, and what we could learn from the current wave of reforms.

Parental involvement, from an economist’s perspective, can be defined as direct effort, provided by the parent, in order to increase educational outcomes of their children. This definition implicitly refers to an education...
production function, and makes parental involvement one of its arguments. The broad perspective adopted here mirrors the definition of family involvement by the Harvard Family Research Project, one of the leading research groups into family involvement outside economics: their definition includes all activities by parents that are intentionally “linked to learning” (Bouffard & Weiss [2008]). This review is concerned with parental involvement in school, defined as the efforts delivered by parents while their child is in school age. Traditionally, however, sociologists and practitioners in education have defined family involvement from the school’s perspective.

There are other attempts at defining parental involvement in school. Traditional definitions are limited to school-related activities, and sociologists have made the distinction between home-based activities (e.g. helping children with homework, discussing their children’s experiences at school) and school-based activities (e.g., communication with the school and participation in school-based activities) (Sui-Chu & Willms [1996]; Deslandes & Bertrand [2004]; Walker et al. [2005]; Green et al. [2007]).

The motivation of better educational outcomes for the child is common to most attempts at defining parental involvement by education scholars. Parental involvement is therefore instrumental to achievement, which in this view is what parents care about. As a consequence, the effects of parental involvement are generally measured on children. Some stakeholders, however, see parental involvement as benefiting also, or mostly, parents themselves; national or local parental involvement programmes by schools are primarily, in this view, a way to increase “customer satisfaction” 3.

The role of economics in such a field - which is originally a field mostly studied by sociologists and psychologists - is thus mainly to answer the following questions: what is the causal impact of the level of involvement, for each kind of spontaneous parental involvement that exists, on children? And what are the causal impacts of the parental involvement programmes that have been implemented by governments and researchers on children? Therefore, this review begins with a comprehensive survey of the economic literature on the levels, the effects and the determinants of (broadly defined) parental involvement.4

After this short review of the economic literature, we cull (mainly) non-economic literature on parental involvement in education, to lay the foundations, in the three last chapters, for a deeper economic understanding of its importance. This review is far from being exhaustive concerning the non-economic literature and selects only the main studies answering three objectives.

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3. See the interview with Miami superintendent Rudy Crew [Bouffard, 2008].
4. The first procedures used to locate economic studies on parental involvement in school involved a computer search of the Google Scholar, Jstor and Repec databases, using the keywords “parental involvement + education” and “parental involvement + program” - a choice that induced a selection of English references. From this selection of articles, we only selected articles published in peer reviewed journals and aiming at measuring the return to parental involvement on children’s success. We then classified them according to the method they used. Finally, we added to this selection two articles presenting descriptive statistics on the level of parental involvement for France and the U.S.
The first objective is to review psychological theories on the motives for involvement, and the mechanisms that could justify a positive effect of parental involvement. The second objective is to look for empirical evidence on the determinants of spontaneous levels of parental involvement. The sociological literature in particular enriches our understanding of involvement choices by pointing to costs and barriers to involvement that are beyond parents’ control. Finally, the last objective is to review what is known today about the impact of parental involvement, and studies on parental involvement programmes – complementing studies on spontaneous levels of parental involvement – are the only non-economic studies allowing to measure a causal impact. They consequently can give a partial answer to the second question, but high quality programme evaluation studies are actually rare.

A major shortcoming of much of the existing empirical literature on the impacts of parental involvement is indeed its failure to account for the fact that parents do not randomly select their level of involvement and are not randomly selected to participate in parental involvement programmes, so that any relationship between family involvement and children’s outcomes need not be causal. In the conclusion, we argue that economists could contribute to the debate, by eliciting sound causal relationships.

1. The economic literature on family involvement in education

Economists of education are primarily concerned with resources devoted to education and their returns. Parental time is a quantitatively important input into the the education production function; however, we know very little on the causal link between levels of involvement and children’s success.

Time use surveys, which allow us to compare countries, social classes, and to elicit trends, document the fact that even after the pre-school years, parents in the industrialized countries continue to spend substantial amounts of time in childcare activities (Guryan et al. [2008]). Two French surveys specifically focus on educational involvement of families. They show that time spent by parents doing homework assignments with children by parents do not randomly select their level of involvement and are not randomly selected to participate in parental involvement programmes, so that any relationship between family involvement and children’s outcomes need not be causal. In the conclusion, we argue that economists could contribute to the debate, by eliciting sound causal relationships.

5. To select these non-economic studies, we firstly identified several literature reviews written in english – a choice explaining the few French references – on parental involvement in non-economic fields, as well as reports from the U.S. Department of Education and from the U.K. Departments for Education and Skills and for Children, Schools and Families. From this point, we then selected the most frequently cited theoretical models, and finally experimental and quasi-experimental studies of parental involvement programmes presented in the last chapter.


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increased, between 1991 and 2002, by half an hour; in the early 2000s this particular form of involvement absorbs about 19 hours on average per month for elementary school children, 14 hours of parental time for middle school children and 6 hours for high-school children. Moreover, the number of parents declaring positive hours spent doing homework with their children also increased in this time-span (Gouyon [2004]).

Given the importance of parental involvement both in everyday life and within the policy debate on education, the relative silence of economists on this topic – no chapter, for instance, is devoted to it in the Handbook of the Economics of Education (Hanushek & Welch [2006]) – is surprising at first sight.

We believe that the scarcity of research into returns to family involvement can be explained by two limiting factors: the availability of data that measure inputs and outputs simultaneously, and the identification hypotheses imposed on data to credibly estimate returns, that further reduce the number of suitable data sets.

To explain this latter point, consider the two approaches used in the economic literature to measure returns to inputs into education (Todd & Wolpin [2003]).

The first uses observational data – with a clear preference for nationally representative surveys – to estimate structurally the parameters of an education production function. The usual simplifying assumption is that the production function is approximately linear in the inputs and in the unobserved endowments (Todd & Wolpin [2007]). The estimation of returns is still challenging because (i) some inputs are missing in datasets and (ii) observed inputs are endogenous with respect to unobserved endowments. This is particularly true for involvement measures, which can always be criticized for being badly measured or endogenous with respect to some unobserved variable. Identification of returns relies, in these studies, on assumptions under which the unobservable inputs and endowments can be ignored; typically, the variation over time in inputs is considered to be more exogenous than the level of inputs at a given point in time, and regularity conditions are imposed on the effects of (unobserved) past investments with respect to present outcomes: under these hypotheses, a fixed-effect estimation is performed. As can be seen, the identification argument restricts datasets that economists can rely upon to rich longitudinal data-sets.

The second approach focuses on a reduced form parameter combining the direct (ceteris paribus) effect of an input and its indirect effect (through modification in the levels of other, usually unobserved, inputs). Identification of this combined effect relies on experimental data, or on instrumental variable estimation in the context of “natural experiments” – which might refer to specific contexts from which it is difficult to draw general conclusions. This approach exploits exogenous shocks which affect the level of an input of the education production function; while situations that impact on levels of involvement are probably not uncommon, the exogenous nature of the shock is generally more questionable and the chances that an unexpected shock gets captured in survey data are limited.

Whatever the approach, there is a clear shortage of data which measure both the components of parental involvement that stakeholders seem to
consider important and the outputs economists worry about. This limits the possibilities of estimating the effect of parental involvement within structural estimation of an education production function, and of instrumental variables estimation of its “local average treatment effect”.

Nonetheless, a few studies are relatively close to this; on the structural side, they are mostly based on data from the National Longitudinal Study of Youth 1979 – Children Sample (a sample of children born to women in the NLSY 1979 cohort). Todd & Wolpin [2007], focusing on test scores, find very significant returns to present and lagged investments in “home inputs”; their finding is particularly important because they do not find significant returns to “school inputs”. The home inputs measure, however, while related to parental involvement as we defined it, is a larger aggregate of information on the overall quality of the home environment – including the emotional and verbal responsiveness of the mother, maternal acceptance of and involvement with the child, organization of the environment, presence of materials for learning, and variety of stimulation. Cunha & Heckman [2008] extend the analysis to account for the distinction between cognitive and non-cognitive skills, and construct their own aggregate of parental inputs from NLSY-CS data (a proxy for both direct and mediated investments into the child’s education). They conclude that parental inputs are relatively more effective in raising non-cognitive skills than cognitive skills, and that critical stages for the development of non-cognitive skills occur until late into childhood, in contrast to critical stages for cognitive skill development which are located in early childhood. Narrower definitions of parental inputs from NLSY-CS data, that are closer to a proxy for involvement, are used in Aizer [2004] and Welsch & Zimmer [2008]. Aizer [2004] focuses on the impact of adult supervision after school on behavioral outcomes for children aged 10 to 14: using family fixed effects to control for unobserved family characteristics, thus exploiting the within family variation and assuming this variation is driven by exogenous factors, she finds that adult supervision is associated with a decrease in risky or antisocial behavior. The impact of adult supervision on cognitive achievement, using these data, is examined in Welsch & Zimmer [2008]: they use a child fixed effects estimation, thus exploiting within-child time variation in supervision, and find no significant impact on test scores. In both studies supervision is an indicator equal to 1 if the child is in the presence of an adult after school.

On the other side, causal inference based on natural experiments, which mirror thought experiments involving counterfactual situations, is very limited in this field. It seems indeed difficult to imagine an exogenous instrument that has an impact only on how parents care for their children; randomized experiments would be blamed as unethical, if they tried to dictate to parents how they should behave. A few specific situations, whose generalizability and link with parental involvement can be questioned (even more so with parental involvement in school), shed however some light on the role of parental care for children’s outcomes: prominent examples include

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7. Starting from 1996, the NLSY-CS has collected more detailed information on parental involvement. More details can be found under http://www.bls.gov/nls/nlscy79ch.htm (retrieved in October 2009).
studies of adoption (see, e.g. Sacerdote [2002]), divorce (see, e.g. Piketty [2003]), or on the number of children using twin births as an instrument (see, e.g. Black et al. [2005]).

Outside the economics of education, economic scholars have started to become interested in the determinants of parental involvement in education. In a recent working paper, Patacchini & Zenou [2007] study the decision of parents to become involved as an intergenerational cultural transmission mechanism. Parents decide their involvement effort in order to maximize their altruistic utility, which includes the child’s discounted probability of succeeding. Parents can increase success probabilities through their own effort; success also depends on the quality of the neighborhood and the parents’ social class. Using UK data from the National Child Development Study (NCDS)\(^8\), the authors find support for the cultural complementarity hypothesis: the better the quality of the neighborhood, the more parents invest in their child’s education. While they find that the correlation is largely driven by positive sorting, they claim that part of it are pure peer effects: neighborhood quality increases the productivity of own investment, as documented by the fact that the correlation is still significant on the sub-sample of families which did never change neighborhood between three years before the child was born and the moment their involvement is measured.

A straightforward extension to the altruistic utility function in Patacchini & Zenou [2007] would be to add “identity” to the parents’ utility (Akerlof & Kranton [2002]). Identity, or self-image, is defined as a function of the match between the ideals for the chosen social category and the parents’ actual behavior and characteristics. With these preferences, parents investing effort to get involved in their child’s education derive utility both through the effect of their investment on the child’s success, and through the influence of this investment on their own self-image.

2. Why do parents become involved in their children’s education?

We begin our review of non-economic literature by presenting theories of why parents of school-aged children become involved in their child’s education. What are the relevant process variables according to research in psychology, sociology, and education, that motivate the decision by parents to become involved, and why does this involvement positively influence educational outcomes?

According to the psychological model proposed by Hoover-Dempsey & Sandler [1995], three (dynamic) constructs primarily influence parents’ involvement decisions:

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\(^8\) The UK NCDS is a rich data set which includes, however, only proxies for parental involvement; the authors’ measure of effort, for instance, is the frequency of reading to the child when the child is of age 7.
1) The parents’ understanding of their role in the child’s life: what they believe that parents are supposed to do in relation to their children’s education and educational progress. Parents become involved in schools if they hold the belief that they should be involved.

2) The parents’ sense of efficacy for helping their child succeed in school: do parents believe that their involvement can exert a positive influence on children’s educational outcomes?

3) The general invitations, demands, and opportunities for parental involvement by both the child and the child’s school: do parents perceive that the child and the school want them to be involved?

Scholars in this field have constructed scales, rooted in psychologic role and efficacy theories and assessed for reliability, that allow scholars to rank parents with respect to their role construction and their sense of efficacy; education scholars, following Epstein [1986] and Epstein et al. [1994], have established scales for measuring parents’ perception of invitations to involvement and for assessing their level of involvement. A recent example of these scales, with references to previous work, can be found in Walker et al. [2005].

Using these measures, the importance of the three mentioned constructs in influencing the decision to become involved has been explored through multivariate analysis of questionnaire data. Although results vary depending on the specific context examined, a general finding is that all constructs appear to make significant contributions to explaining involvement (Reed et al. [2000]); however, further results of these empirical studies have led to an important distinction of mechanisms guiding involvement at home and at school (Deslandes & Bertrand [2004]). Specifically, for home-based involvement, efficacy seems to play a pre-eminent role, while for school-based involvement, invitations from teachers and children provide the biggest contribution in explaining levels of involvement (Deslandes & Bertrand [2004]; Green et al. [2007]).

If parental involvement is instrumental to children’s outcomes, a psychological theory of parental involvement must also address the reason why parental involvement can positively influence the child’s achievement.

The model by Hoover-Dempsey & Sandler [1995, 1997] allows for three primary mechanisms through which parents, by increasing their involvement in education, can bear an influence on children’s educational outcomes: modeling, reinforcement, and direct instruction. Modeling theory predicts that children will emulate their parents’ behavior; by devoting interest and time to activities related to schooling, parents thus enhance the possibilities that children do well in school. Reinforcement indicates the mechanism by which parent give their children interest, attention, praise and rewards related to behaviors that lead to school success. If these psychological incentives do not interfere with the child’s intrinsic motivation and are valued by the child, they increase the effort exerted by the child to behave in ways important to school success. Finally, parents can influence their children’s educational outcomes by direct instruction.

Educational outcomes which are influenced by parental involvement through the cited mechanisms include both cognitive skills (especially
through direct instruction, but also through modeling and reinforcement) and non-cognitive skills, among which the most significant – according to Hoover-Dempsey & Sandler [1995] – is the child’s sense of efficacy for doing well at school. The theory predicts that children whose parents are involved in their education will be more likely to develop a strong, positive sense of efficacy for successfully achieving in school-related tasks than will children whose parents are not involved.

3. The Determinants of Spontaneous Levels of Parental Involvement

Most of the existing empirical literature on parental involvement focuses on spontaneous levels of involvement. Recent research in this area adopts advanced statistical techniques to describe the scope and scale of involvement: determinants, conditioning factors, and levels. The majority of studies focuses on parental covariates of involvement; research however also suggests that parents adjust their involvement to the context, and there exists a small literature on how parental involvement in school is related to the child’s age and gender.

The empirical literature on spontaneous levels of parental involvement consistently documents the following three stylized facts: (1) parental involvement is increasing in the parents’ socio-economic status; (2) type of parental involvement changes over time as the child ages, and time spent on direct involvement activities decreases; (3) parental involvement takes slightly different forms for sons and daughters.

While economists tend to focus on demand factors – the shape of parents’ preferences – sociologists pay more attention to institutional determinants, costs and barriers that lie outside of parental control.

3.1. Parents’ characteristics and level of involvement

Scholars in education concur on the strong link between parents’ background and children’ attainment. How this relation originates is subject to much more controversy. Economic literature partly failed to explore and explain the transmission mechanisms of human capital by parents. In contrast, sociology of education has focused on the process and accurately describes the association between parents’ background and levels of parental involvement (Lareau [1987]; Sui-Chu & Willms [1996]).

Socio-economic status, as measured by occupation/wages or parental level of education, is positively associated with parental involvement. Welsch & Zimmer [2008] and Guryan et al. [2008], among others, document
that parents with higher education and higher wage allocate more time to direct child care despite their opportunity cost being larger. In recent years, in the US, working-women with a college degree spend about 70% more time caring for their children than working-women with less than a high-school degree; fathers with a college degree spend more than double the time for child care than high-school dropout fathers\(^9\) (Guryan et al. [2008]).

As explanations for their results, Guryan et al. [2008] advance the following possibilities: child care is a luxury good (higher educated parents have a stronger preference for cared-for children); higher-educated parents have a lower elasticity of substitution between own and market-based child care; or returns to investing in the children are higher for higher educated parents. However, higher returns do not trigger necessarily higher investment, as substitution effects could interact to lower the time spent while still producing the same level of human capital; part of the explanation must lie in different preferences.

The sociological literature, which focuses on the interplay of schools and families, provides a richer explanation for the socio-economic gradient that combines “demand” and “supply” factors. Lareau [1987] resumes the three theories in sociology that explain varying levels of school involvement by socio-economic status. The “culture of poverty” theory suggests that working-class families do not value education as highly as middle and upper-class families. This explanation is close to the above-cited preference-based explanations. Next, a second theory makes the schools responsible for the lower involvement of working-class families: according to this “institutional” theory, schools are more welcoming to middle-class families and subtly discriminate against working-class families. Finally, a third perspective stems from Bourdieu’s work on cultural capital, and argues that schools are largely middle-class institutions with middle-class values; their requests for parental involvement are laden with the social and cultural experiences of intellectual and economic elites, and are therefore well accepted by children and parents from the upper and middle class. For instance, communications from the school adopt linguistic structure and syntax that appear welcoming to middle-class parents but is perceived with apprehension by working-class parents. Crozier [1997], through a sociological field work in a British school, illustrates the sort of frictions that can be met by working class parent in their relation with administration and teachers. The cultural capital theory emphasizes the roles of both schools and parents, through the class structures embedded in home and school life.

Finally, Deslandes & Bertrand [2004] show how the psychological constructs which motivate involvement are empirically related to socio-economic status. In particular, the parents’ completed years of schooling are associated with their sense of efficacy for helping their child succeed in school.

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\(^9\) These figures are regression coefficient in which the authors control for parents’ age, number of children, marital status, and age of youngest child. They correspond to about 6.4 hours more spent by graduated mothers in child care per week, and 4.8 hours more spent by graduated fathers.
An interesting development of the empirical literature on socio-economic status investigates the existence of peer-effects in levels of parental involvement. Sui-Chu & Willms [1996] use the US National Education Longitudinal Study (NELS) to examine patterns of variation in parental involvement across socio-economic status, both between and within schools. They show that most of the variation in parental involvement occurs within schools; the authors also show that the mean socio-economic status of a school displays a positive association with parental involvement levels in addition to the individual socio-economic status, providing evidence for peer-effects or for positive sorting. This finding mirrors in some respects the result by Patacchini & Zenou [2007] for the UK.

A second spin-off of this research asks whether returns to parental involvement differ by socio-economic status. To date, however, there is only correlational evidence on this point. Several authors have shown, using NELS data, that the correlation of involvement with academic achievement, truancy or dropout behavior is stronger for families with high socio-economic status [McNeal, 2001], for whites, and more generally for the traditionally advantaged sections of American society (McNeal [1999]; Desimone [1999]). None of these studies does account for the endogeneity of parental involvement decisions.

### 3.2. Parental involvement and child characteristics

Parental involvement practices also vary with the child characteristics.

Muller [1998] shows, using data from the US National Education Longitudinal Study, that parents are involved slightly differently in their sons’ and daughters’ school life, in ways which are consistent with the general literature on gendered education. Parents are more nurturing and restrictive toward their daughters but may discipline their sons more. Using French data, Duru-Bellat & Jarousse [1996] show significant differences for parents’ expectation about the educational career of their sons and daughters, which might well influence their involvement.

Psychologists have also shown that family involvement in school changes over time, as children mature, in response to their changing needs and to their new educational environments (see Bouffard & Weiss [2008], and the references cited therein). Family involvement practices that provide direct instruction and support are more prevalent in the elementary school years; Gouyon [2004] shows, for France, that homework practice declines steadily with age. At the same time, less instrumental forms of involvement (monitoring school performance and progress, discussing plans for higher education, and maintaining high expectations) become more common in adolescence (Catsambis & Garland [1997]).

These patterns can be interpreted, in terms of the psychological process variables, as reflecting different understandings of parental roles for daughters and sons, as well as for children of different age; the age pattern is also
likely to be rooted in declining levels of invitations from children and teachers and a general decline in the sense of efficacy when children enter adolescence.

4. Parental involvement programmes

4.1. An overview

As we have already emphasized, parents’ involvement is an active area of social innovation.

The recent widespread development of initiatives by schools to involve parents is rooted in the belief that what parents think and do is significant to educational outcomes: as Hoover-Dempsey & Sandler [1997, p. 8] write, “while schools cannot realistically hope to alter a student’s family status, schools may hope to influence selected parental process variables in the direction of increased parental involvement”.

Existing programmes can be classified along a variety of dimensions and differ in many ways from each other. An influential classification distinguishes programmes according to the type of involvement that schools try to foster. Joyce L. Epstein distinguishes six types of involvement (Epstein [1986]; Epstein & Dauber [1991]):

**Type I** Involvement in basic obligations at home (the provision of school supplies, general support and supervision at home).

**Type II** School to home and home to school communications.

**Type III** Assistance at the school (volunteering).

**Type IV** Assistance in learning activities at home.

**Type V** Involvement in school decision-making, governance and advocacy.

**Type VI** Collaboration and exchange with community organizations.

Parental involvement programmes typically address more than one type of involvement; an additional component to many existing school-based parenting programmes is parent academic education (e.g. language training for non-native speakers), in an attempt to increase their skills.

In their review of 41 US parent involvement programmes, Mattingly et al. [2002] note that most programmes are multidimensional and include on average three to four components (defined as above). A majority of programmes include components to increase parental involvement in home learning (75%), to improve parenting skills (61%), or to improve parent/school communications (54%).

More recently Desforges & Abouchaar [2003] have suggested that attempts to promote parental involvement in school can be classified into three categories: first, programmes which focus on the immediate connec-
tivity between schools and parents; next, programmes which cast parental involvement more broadly in the context of family and community education programmes; thirdly, parent training programmes aimed at promoting parental psychosocial health and/or relationship skills which are known to be foundational to parental involvement. This classification distinguishes programmes with a more narrow focus on promoting children’s levels of achievement from programmes that have broader objectives.

4.2. Evaluations of parental involvement programmes

The perception that parental involvement has a positive effect on students’ academic success has become almost common sense, and has influenced the development of parental involvement programmes. Attempts to increase parent involvement are a regular feature of national, state, and local education policies in the US and the UK.

Research on interventions to promote parental involvement has, however, mostly failed to deliver convincing measures of their impact; in the summary of their review, Desforges & Abouchaar [2003, p. 5] noted that “evaluations of interventions are so technically weak that it is impossible on the basis of publicly available evidence to describe the scale of the impact on pupils’ achievement”.

In a similar vein, a review of evaluations of US programmes by Mattingly et al. [2002] concludes:

“The exponential development of parent involvement programs, many funded by federal and state grants, is both promising and troublesome [...] the effectiveness of various program designs and components remains unknown (p. 553). The majority of studies we assessed had weak evaluation designs (p. 568). A majority of the measured outcomes did not show a significant improvement in studies that used the most stringent criteria [...] suggesting that the purported effectiveness of many parent involvement programs is an artifact of weak evaluation methods” (p. 571).

Indeed, research into parental involvement has devoted much effort to capture contextual issues – determinants, barriers, conditioning factors – while intervention studies, that would help understand what programmes are most effective, are rare or of low quality.

Any statement on the impact of family involvement programmes rests on some form of comparison: impact is defined as the change delivered by the programme, and its measure supposes the comparison of the observed end-point with some measure of what would have happened in the absence of the programme – a counter-factual situation. In randomized control trials, the design of the intervention delivers a credible measure of this counter-factual because before intervention, test and control groups are – by construction, given the properties of random assignment – two representative samples of the population targeted by the programme.
To our best knowledge, only two evaluations of school-based parental involvement programmes – programmes targeted at parents, whose main measure of impact is on children\(^\text{10}\) – have used random assignment rules\(^\text{11}\).

The first school-based parenting programme to have been submitted to impact assessment using rules that randomly assign subjects to test and control groups is the SPOKES programme (Supporting Parents on Kids’ Education in School) (Scott et al. [2006]). This is an intervention which combines an adult literacy programme, focused on reading readiness, with parenting support (the “Incredible Years” videotape programme) delivered to families in a disadvantaged area in South London, with most eligible families from ethnic minority groups. Parents were recruited at the primary school of their children. The evaluation found significant changes in parenting attitudes (increased parental sensitivity, more child-centered parenting, increased use of calm discipline in response to unwanted behavior, reduction in criticism); the trial was also associated with an increase in the child’s attention on task, while no significant change could be measured in antisocial behavior nor in child reading ability.

Balli et al. [1998] conduct and analyse a very small-scale experiment – one involving three classes, that assigns them randomly to two treatments and one control – where the two possible treatments consist in different levels of invitations to parents for involving with their child’s mathematics homework. Due to the small number of randomization units (3), this study qualifies for a pilot study more than for a full-scale experiment, and any inference must be regarded cautiously. The authors find that prompting parents to get involved is an effective way of increasing their level of involvement; they do not, however, detect differences in the performance of students from the three classes.

A somewhat more systematic attempt at evaluating rigourously parental involvement programmes exists in the context of early childhood interventions. The U.S. Even Start programme (see, e.g. Ricciuti et al. [2004]) for instance includes an experimental sample. This is an ongoing family literacy programme targeted at low-income families (see U.S. Department of Education, 2008, p. 152): under this scheme, families are provided with interactive parent-child literacy activities, parenting education, as well as more general adult education and early childhood education. The evaluation sample consists of 463 families (309 test and 154 control); no study on this evaluation sample finds significant improvements associated with the programme, although the design has adequate statistical power (ability to detect effects of a certain magnitude, given the sample size) only if the programme was expected to deliver large effects.

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\(^{10}\) For instance, Toney et al. [2003] study a randomized experiment providing parent training for homework involvement, but their outcome measure is the parent perceptions of homework problems. They do not have any objective measure of children outcomes.

\(^{11}\) We exclude from the count unpublished studies, some of which are reviewed by Patall et al. [2008]. We also exclude school based interventions with a preventive health focus (obesity, cardiovascular health, smoking), which might include – among other things – parental involvement components. Epidemiologists have a better tradition of assessing their impact using randomized experiments. A recent review of these programmes can be found in Steyn et al. [2008].
When randomization is not included in the intervention design, evaluation rests on assumptions that make some non-randomly chosen control group (for quasi-experimental studies) or the past (for pre-post studies) representative of the situation of the programme beneficiaries in the absence of the programme (the counterfactual).

Among quasi-experimental studies, the most rigorous construct the control group by matching on observable characteristics. Sheldon [2007] evaluates the impact on student attendance of the “National Network of Partnership Schools” programme in 69 participating school, by ex-post constructing a comparison group of 69 non-participating schools with similar demographic characteristics, and finds a positive difference in favor of participating schools.

Other matched control groups evaluations of parental involvement programmes are reviewed in Mattingly et al. [2002]; these fail generally to provide evidence of the effectiveness of the programme with respect to student outcomes.

Most studies however claim to identify an impact of parental involvement from pure cross-sectional correlations between outcomes and inputs. This is equivalent to saying that any surveyed group that did not experience the programme is a valid control group. The most sophisticated among these studies use longitudinal data to define outcomes in terms of change, but do not take first differences for inputs (Sheldon & Epstein [2002, 2005])\(^\text{12}\). This may improve precision in the estimated coefficients, if outcomes are serially correlated, but does not alter identification hypotheses with respect to simple cross-sectional correlation. The vast majority of “evaluations” are, in fact, correlational; the typical method is a regression which includes controls for confounding factors (when available), in which the dependent variable is a measure of parental involvement or of student achievement, and the independent variable of interest is a scale of the schools’ effort to improve parental involvement (see, e.g. Sanders et al. [1999]).

Finally, a number of studies more modestly limits itself to qualitative statements about impact (see, e.g. Harris & Goodall [2007]). The interested reader may be referred to Mattingly et al. [2002], a meta-analysis of 41 evaluations of parental involvement programmes at US schools, and Desforges & Abouchaar [2003] for the UK.

To summarize the sparse evidence on the causal impact of parental involvement programmes, a common and undisputed finding is that levels of involvement can be raised. However, as Desforges & Abouchaar [2003, p. 70] write, “the jury is out on whether this makes a difference to pupil achievement”. Available evidence suggests that effects are more important on non-cognitive abilities (patience, self-control,...) than on pure cognitive abilities.

\(^{12}\) A similar approach is used by (Hallam et al. [2004]) to assess the change induced on parenting behavior by voluntary or compulsory attendance of parenting classes for parents whose child’s attendance or behavior at school has given cause for concern.
Conclusion

The policy debate on parental involvement in schools is largely a debate without economists. In concluding this review, we would like to highlight the contribution that empirical and theoretical economists could make to the positive understanding of parental involvement levels and normative recommendations for policy.

Over the last decades, economists have developed a comparative advantage with respect to other social sciences in the identification and estimation of safe causal relationships; application of the economists’ strategies to parental involvement are, however, rare. In the context of structural estimation, as we have seen, this is likely related to the scarcity of appropriate data; it seems difficult to go beyond NLSY-CS data, which have been already exploited.

To guide policy decisions, however, there is great need for evaluation of actual parental involvement programmes and for evidence on the role of programme components in encouraging different types of involvement. We also still lack a coherent picture of the impact of different types of involvement on various categories of educational outcomes; nothing is known on how these impacts vary with parents and child characteristics. Randomized experiments should become much more common in this field. The local level of implementation within existing bureaucratic structures facilitates both the incorporation of a randomized design into the programme and the data collection for its evaluation: schools have a long tradition at experimenting and already collect a whole range of measures of educational outputs within administrative routines.

The results of these exercises should then be cast within the Cunha & Heckman [2007, 2008] framework: on the positive side, what do they tell us about critical stages in child development? On the normative side, what is the optimal timing of investments in parental involvement?

The impact of parental involvement programmes can cast some light more generally on returns to spontaneous levels of involvement (and interestingly on the potential heterogeneity of this return with respect to the level of success of the child) and allow to conduct cost-benefit analysis.

An economic analysis on the effect of parental involvement should then be supplemented with an analysis on its origins. Many of the cited psychological and sociological motives for parents’ decision on the level of involvement can be understood as related to some element of parents’ utility (be it an altruistic concern with the child’s success or an investment into the parent’s social “identity”) or to the direct and indirect costs of involvement – some of which seem to be manipulable by schools. How can different levels of parental involvement by different groups be explained then as resulting from unequal returns to investment (in child’s success or identity) or unequal costs? What are the patterns of complementarity and substitutions with other arguments of the utility function, most notably the peer’s investment and school inputs?

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