



I.

UCD GEARY INSTITUTE DISCUSSION PAPER SERIES

Differential parent and teacher reports of school readiness in a disadvantaged community*

Dr. Orla Doyle, Sarah Finnegan,* and Kelly A. McNamara

Geary Institute, University College Dublin.

Word count (exc. figures/tables): 4,979

*Requests for reprints should be addressed to Sarah Finnegan, Room B207, UCD Geary Institute, Belfield, Dublin 4, Ireland. (e-mail: Sarah.Finnegan@ucd.ie).

* This research is funded through the 'Evaluation of the Preparing for Life Programme' which is conducted by the Northside Partnership and funded by Atlantic Philanthropies and the Office of the Minister for Children and Youth Affairs.

Differential Parent and Teacher Ratings of School Readiness in a Disadvantaged Community

Abstract

Background Differential ratings by multiple informants are an important issue in survey design. Although much research has focused on differential reports of child behaviour, discrepancies between parent and teacher reports of children's school readiness are less explored.

Aim To examine differences in parent and teacher ratings of school readiness of children from a disadvantaged community.

Sample Participants were 94 parents and 12 teachers in a disadvantaged community in urban Ireland who completed a survey regarding the school readiness of 94 and 101 children respectively ranging in age from four to six years old.

Method School readiness was assessed using parent and teacher reports on the Short Early Development Instrument (S-EDI) which measures school readiness across the domains of physical health and well-being, social competence, emotional maturity, language and cognitive development, and communication and general knowledge.

Results Although parent and teacher ratings of school readiness were positively correlated, parent ratings of school readiness were significantly higher than teacher ratings across the majority of the S-EDI domains and subdomains. Most discrepancies remained when the sample was analysed according to the child's gender, teacher experience and parental education.

Conclusion Clear differences emerge between parent and teacher ratings of school readiness. This may be a result of the different frames of reference of parents and teachers or differential children's behaviour in the home and school contexts. Thus, the contributions of different informants may provide valuable information pertaining to the school readiness of children.

Survey responses whereby multiple informants provide ratings for the same items form a central issue in questionnaire construction (Grootendorst, Feeny, & Furlong, 1997). The issue is of greater concern when informants rate items requiring a subjective evaluation, such as well-being, as opposed objective items, such as height (McDowell, 2006). Low correlations between responses are frequently interpreted as reflecting poor instrument reliability, often leading researchers to favour one informant over another (Gould & Shaffer, 1985). However, low correlations between informants may be an indication of behaviour differing from one situation to the next. This idea is central to the “person-situation controversy,” where personality traits and behaviours tend to vary across situations and settings (Pervin, 1989). Therefore the question of whether informants are rating the same behaviour differently, or whether individuals display different behaviours in different contexts, has key relevance for the interpretation of survey responses.

The present study examines differential responses in the context of children’s school readiness using both parent and teacher reports. The aims of the study are threefold. First, to examine if significant differences exist between parent and teacher ratings of school readiness. Second, to determine the dimensions of school readiness where differences emerge, and third, to examine whether these differences change as a function of the child’s gender, parental education, or teacher experience.

Discrepancies between reporters are cited in multiple research domains. For example, in the medical literature, self-rated and proxy measures of health indices are frequently compared to test for discrepancies (e.g., Berk, Horgan, & Meyers, 1982; Grootendorst et al., 1997). As some individuals are unable to provide self-report information, for example, young children or the cognitively impaired, it is often necessary to obtain data from a third party or proxy (Hays et al., 1995). Yet there are often systematic biases between these self and proxy reports, reflecting a tendency for proxy respondents to rely on dispositional information about

the actor, and self-reporters' overreliance on situational information (Schwartz & Wellens, 1997).

Psychological and educational studies also use independent informants to quantify some aspects of behaviour (e.g., Cai, Kaiser, & Hancock, 2004; Epkins, 1996; Loeber, Green, Lahey, & Stouthamer-Loeber, 1991), with parent and teacher ratings of child behaviour being one of the most common methods for behavioural assessment (Winsler & Wallace, 2002). For example, the clinical psychology literature regularly uses adult behaviour ratings of child psychopathology to explore the nature and extent of psychological disorders (e.g., Bird, Gould, & Staghezza, 1992; DeLos Reyes, & Kazdin, 2005). Such judgement requires a degree of subjectivity as the rating provided depends upon the reporter's interpretation of the behaviour. Certain characteristics of the informants and settings may be associated with certain types of behaviour (Cai et al., 2004). For example, as parents, teachers and peers interact with children in different settings, and play different roles in children's lives, they may witness differential behaviours which can be reflected in their reports of the behaviour.

The results of a seminal meta-analysis indicate that methodological realities limit the cross-situational consistency typically found in the assessment of children's behavioural and emotional problems (Achenbach, McConaughy, & Howell, 1987). Where adult informants provided information about children's behaviour problems, overall median agreement between parent and teacher reports of behaviour was modest. This low-to-moderate agreement between parent and teacher reports has often been interpreted as evidence of the situational specificity of children's behaviour problems and thus highlights the importance of obtaining measures from multiple informants. Additionally, a moderate correlation between children's self ratings and those by parents, teachers and mental health workers indicates that children's self reports cannot substitute for reports by the other informants.

Since the publication of this benchmark meta-analysis, low-to-moderate cross-informant correlations continue to be found so frequently in the literature that they have been referred to as “the most robust findings in clinical research” (De Los Reyes & Kazdin, 2005). For example, Yang, Huijun, Zhang, Tein, & Liu (2008) compared parent and teacher reports of children’s externalising and internalising problems, and found that parents reported consistently more behavioural and emotional problems than did teachers. These results were replicated in Salbach-Andrae, Lenz, & Lehmkuhl (2009) and Williams et al. (2009) who found that parents reported more behavioural problems than did teachers. However, most of the literature on adult informants and child behaviour tests the level of agreement, or cross-informant consistency, between informants, as opposed to testing the degree of differences (Renk, 2005).

A less developed area of research where discrepancies between parent and teacher reports may exist is school readiness. School readiness is a multi-dimensional concept reflecting the holistic nature of children’s development and taking into account a range of factors in their wider environment (Janus & Offord, 2000). Poor school readiness is linked to many negative later life outcomes such as academic failure (Forget-Dubois et al., 2007), poor socio-emotional adjustment (Ladd, 1999), teenage pregnancy (Brooks-Gunn, 2003) and unemployment (Rouse, Brooks-Gunn, & McLanahan, 2005). School readiness has been described as a foundation on which all later learning is built, in that children who develop well at earlier stages are able to elicit interactions and experiences that accelerate their development and facilitate achievement in later life (Heckman, 2000). Thus, gauging correct assessments of children’s school readiness is a critical issue in survey design.

To date, only a small body of research has examined differences in parent and teacher ratings of school readiness. These studies are primarily concerned with differing parent and teacher perceptions of children’s school readiness (e.g., Knudsen-Lindauer & Harris, 1989;

West, Hausken, & Collins, 1993), and beliefs about school readiness (e.g., Piotrowski, Botsko, & Matthews, 2000), rather than whether parents and teachers rate children's level of school readiness differently. There are also some studies that use qualitative methods, such as focus groups, to explore, at a more in-depth level, parental and teacher conceptions of readiness (e.g., Dockett & Perry, 2004; Wesley & Buyesse, 2003). Collectively, these studies typically find that parents and teachers define school readiness in different ways, with parent definitions focusing on academic skills, and teacher definitions focusing on non-academic skills (Knudsen-Lindauer & Harris, 1989; West, et al., 1993). Such differences in definitions of school readiness may, in turn, lead to differences in ratings of school readiness. However, to the authors' knowledge, no existing study has directly compared parent and teacher ratings of school readiness.

This study assesses the levels of school readiness of children entering their first year of school in a disadvantaged community in Ireland, focusing on the discrepancies between parent and teacher reports. It is important to examine these differential ratings among a disadvantaged cohort as research indicates that familial factors, such as low socioeconomic status, can place children at risk for poor school readiness (Janus & Duku, 2007; Lapointe, Ford, & Zumbo, 2007). Furthermore, it has been suggested that parents' school readiness beliefs may be a function of concerns that their child will not succeed in a resource-poor school, particularly in disadvantaged communities (Piotrowski et al., 2000).

The study also investigates potential explanations for such differences between parent and teacher ratings. Although differences in ratings may vary according to the gender of the child, few studies assess gender differences in multiple informant ratings of behaviour (Renk & Phares, 2004). However, there are well-established differences in the academic and socio-emotional development of boys and girls (e.g., Eccles, Wigfield, Harold, & Blumenfeld, 1993; Webster-Stratton, 1996) and boys are consistently shown to exhibit more externalising

behaviours, such as aggression, than girls (Chen, 2008). In addition, evidence suggests that cross-informant consistency is greater for outwardly observable behaviours (Diamond & Squires, 1993), thus, there may be more cross-informant agreement in ratings of boys' behaviours compared to girls'.

One other potential explanation for differing parent and teacher reports may be related to the relative experience of the reporting informants. For example, the expectations of less experienced teachers may differ from more experienced teachers who have observed multiple cohorts of children entering school. It is also possible that parent's ratings of school readiness are a function of their own level of education, with more educated parents having greater expectations and knowledge about the skills that are required at school entry. In order to investigate these potential explanations for the diverging parent and teacher scores, the ratings of inexperienced teachers are compared to parents, and the ratings of higher educated parents are compared to all teachers.

In line with previous research, the present study hypothesises that teachers will rate children higher than parents on each domain of school readiness. However, as the majority of previous studies have used normative samples, and the current sample is taken from a disadvantaged community, there may be some divergence from this standard findings. Second, the study hypothesises that any observed differences may not remain significant when the sample is broken down by gender, teacher experience and parental education.

Method

Participants

Parent Characteristics

In total, 94 parents completed a pen and paper questionnaire assessing family socio-demographics, their work life and finances, and the school readiness of their child, resulting in a response rate of 76%. The majority (94%) of respondents are the biological mother and the average age is 30.48 years old ($SD=5.53$). The majority of respondents are Irish (88%), with 9.78% being Irish Travellers. This corresponds to the 2006 Census data for the area which report that approximately 10% of the population in this area are Irish Travellers (Census Small Area Population Statistics, 2006). On average, 4.69 people are living in each household ($SD= 1.44$) and parents have 2.88 biological children ($SD=1.61$).

Teacher Characteristics

In total, 12 teachers from 5 primary schools completed an online questionnaire for 101 children who had parental consent to participate in the survey, resulting in an overall teacher response rate of 99%. All teachers are female and their mean age is 37.25 years ($SD=10.46$). On average, they have been teaching for 10.83 years ($SD=8.88$), and teaching this grade for 4.25 years ($SD=3.65$). The amount of time spent teaching in the current schools ranges from one year to 31 years, with an average of 9.42 years ($SD=7.83$). In terms of education, 58% of the teachers have a postgraduate qualification and 33% have a primary degree. There is information on class size for 58% ($n=7$) of the teachers, with class sizes ranging from 13 to 16 students with an average of 14.7 ($SD = 1.30$) students in these classes.

Child Characteristics

The mean age of children in the sample is 4.77 ($SD = 0.39$) years old and 59% are male.

Instruments*Short Early Development Instrument (S-EDI; Janus, Duku, & Stat, 2005)*

School readiness was assessed using parent and teacher reports of the short form of the Early Development Instrument (EDI; Janus & Offord, 2005). The S-EDI is composed of 48 core items and provides scores in five domains of school readiness. Descriptions of domains and standardised Cronbach alpha coefficients (Cronbach, 1951) are reported here. The *physical health and well-being* (¹ $\alpha_{\text{teacher}} = .71$, n=79) construct is composed of three three-item subscales including physical readiness for the school day ($\alpha_{\text{parent}} = .10$, n=88; $\alpha_{\text{teacher}} = .44$, n=94), physical independence (² $\alpha_{\text{teacher}} = .41$, n=97), and gross and fine motor skills ($\alpha_{\text{parent}} = .38$, n=86; $\alpha_{\text{teacher}} = .68$, n=85). The *social competence* ($\alpha_{\text{parent}} = .85$, n=86; $\alpha_{\text{teacher}} = .89$, n=100) construct comprises four three-item subscales including respect and responsibility ($\alpha_{\text{parent}} = .67$, n=90; $\alpha_{\text{teacher}} = .82$, n=100), approaches to learning ($\alpha_{\text{parent}} = .63$, n=89; $\alpha_{\text{teacher}} = .86$, n=101), readiness to explore new things ($\alpha_{\text{parent}} = .85$, n=93; $\alpha_{\text{teacher}} = .72$, n=101), and overall social competence with peers ($\alpha_{\text{parent}} = .58$, n=92; $\alpha_{\text{teacher}} = .84$, n=101). The *emotional maturity* ($\alpha_{\text{parent}} = .71$, n=66; $\alpha_{\text{teacher}} = .85$, n=51) domain consists of four three-item constructs including prosocial and helping behaviour ($\alpha_{\text{parent}} = .79$, n=78; $\alpha_{\text{teacher}} = .87$, n=65), aggressive behaviour ($\alpha_{\text{parent}} = .68$, n=85; $\alpha_{\text{teacher}} = .87$, n=82), anxious and fearful behaviour ($\alpha_{\text{parent}} = .65$, n=86; $\alpha_{\text{teacher}} = .87$, n=100), and hyperactive and inattentive behaviour ($\alpha_{\text{parent}} = .80$, n=87; $\alpha_{\text{teacher}} = .87$, n=101). The *language and cognitive development* ($\alpha_{\text{parent}} = .80$, n=47; $\alpha_{\text{teacher}} = .87$, n=65) construct contains four three-item subscales related to basic literacy skills ($\alpha_{\text{parent}} = .57$, n=86; $\alpha_{\text{teacher}} = .73$, n=91), advanced literacy skills ($\alpha_{\text{parent}} = .60$, n=78; $\alpha_{\text{teacher}} = .57$, n=86), basic numeracy skills ($\alpha_{\text{parent}} = .56$, n=80; $\alpha_{\text{teacher}} = .80$, n=77), and interest in literacy/numeracy and memory ($\alpha_{\text{parent}} = .25$, n=61; $\alpha_{\text{teacher}} = .80$, n=86). The final construct, *communication and general knowledge* ($\alpha_{\text{parent}} = .77$, n=92; $\alpha_{\text{teacher}} = .90$, n=101) comprises

¹ Data did not permit calculation of a reliability coefficient for parent ratings on this domain.

² Data did not permit calculation of a reliability coefficient for parent ratings on this domain.

three items and contains items such as ability to tell a story and ability to communicate in an understandable way.

Scores on each domain range from zero to ten with higher scores representing more frequent display of behaviours in that domain. The intercorrelations between S-EDI domains are reported in Table 1 and indicate that there are low to moderate correlations across the parent reported S-EDI domains and moderate to high correlations across the teacher reported S-EDI domains.

Parent and teacher rated S-EDI domains that reached reliability of 0.56 or above in the present cohort are included in further analyses. Therefore, the physical health and well-being domain and the interest in literacy/numeracy subdomain were excluded from the analyses due to low reliability.

<INSERT TABLE 1 HERE>

Procedure

Parents were recruited via their child's teacher. Teachers gave packets containing an information sheet, consent form, and parent questionnaire to the parents who returned the completed questionnaire, in a sealed envelope, to their child's teacher. Teachers completed an online survey accessed via a unique user ID and password.

Data Analysis

The results section presents the mean ratings of parent and teacher reported school readiness. Normality of the data was tested using Pearson chi-squared tests. Results indicate that all domains were non-normal, therefore non-parametric Spearman's rho tests were used to examine the correlation between parent and teacher reports and Wilcoxon signed ranks tests were employed to compare parent and teacher ratings of school readiness for each of the S-

EDI domains and subdomains. In addition to examining overall differences between parents and teachers, these tests are also used to examine gender differences in reports, and to compare inexperienced teacher reports to parent reports and higher educated parent reports to teacher reports. Teacher experience and parental education were dichotomized such that inexperienced teachers had five or less years of teaching experience and higher educated parents had obtained a vocational school-leavers certificate.

Results

Correlations between Parent and Teacher Ratings of School Readiness

Parent and teacher ratings of school readiness are positively correlated across all four reliable S-EDI domains: social competence ($r=.43$; $p<.001$), emotional maturity ($r=.48$; $p<.001$), language and cognition ($r=.53$; $p<.001$), and communication and general knowledge ($r=.30$; $p<.01$). However, only eight of the 11 reliable subdomains were significantly correlated. Specifically, parent and teacher reports on responsibility and respect ($r=.26$; $p\leq.01$), approaches to learning ($r=.36$; $p<.001$), social competence with peers ($r=.29$; $p<.01$), aggressive behaviour ($r=.35$; $p\leq.001$), anxious and fearful behaviour ($r=.4$; $p<.001$), basic literacy skills ($r=.62$; $p<.001$), advanced literacy skills ($r=.42$; $p<.01$), and basic numeracy skills ($r=.26$; $p<.05$) were all significantly correlated.

Mean Ratings of School Readiness

Figure 1 illustrates parent and teacher ratings of children's school readiness. Parents rated children highest on the communication and general knowledge domain, with a mean rating of 9.09 (SD= 1.66). Children received a mean rating of 8.73 (SD=1.28) on the social competence domain and a mean rating of 8.06 (SD=1.28) on the emotional maturity domain.

Parent reports of school readiness were lowest on the language and cognitive development domain, with a mean rating of 6.45 (SD = 2.20).

Teachers rated children highest on the social competence domain, with a mean score of 7.33 (SD = 2.05). Children received a mean rating of 6.51 (SD=2.03) on the emotional maturity domain, and a mean rating of 5.52 (SD=3.00) on the language and cognitive development domain. Finally, teachers rated children lowest on the communication and general knowledge domain with a mean score of 5.12 (SD = 3.47).

Similarities in the patterns of mean scores were present across parent and teacher reporters. Specifically, both reporters showed the same pattern in ratings for the social competence and emotional maturity domains, with scores decreasing across each one. In contrast, however, the communication and general knowledge domain received the lowest rating from teachers, yet was rated highest by parents.

<INSERT FIGURE 1 HERE>

Comparisons of Teacher and Parent Reported S-EDI

As demonstrated in Table 2, parent ratings of school readiness were significantly higher than teacher ratings on multiple domains of the S-EDI. In addition to comparing overall differences between parent and teacher reports of school readiness, differences based on gender, teacher experience, and parental education were also explored and are presented in Table 2.

Social Competence

Parents rated children as displaying more socially competent behaviour than did teachers, including higher ratings of approaches to learning, readiness to explore new things,

and overall social competence with peers. However, differences in parent and teacher reports of responsibility and respect did not reach significance.

Results disaggregated by gender are presented in columns two and three of Table 2. These findings reveal a similar pattern to the aggregate measure in regards to the overall social competence score, such that parents rated both boys and girls as displaying more socially competent behaviour. Specifically, parents rated both boys and girls as displaying higher levels of social competence with peers than did teachers. Additionally, parents reported that boys displayed higher levels of approaches to learning and readiness to explore new things. Furthermore trends show that parents reported that girls display higher levels of readiness to explore new things than did teachers.

Emotional Maturity

Parents rated children as displaying higher levels of emotional maturity than did teachers, including higher ratings of prosocial and helping behaviour and lower ratings of hyperactivity and inattention and anxious or fearful behaviour. Differences in parent and teacher ratings of aggressive behaviour did not reach significance. Similar patterns emerge when differences by gender were analysed, however the diverging parent and teacher reports of anxious and fearful behaviour did not reach significance for girls.

Language and Cognitive Development

Data trends indicate that parents rated children as displaying higher levels of language and cognitive development, including more advanced literacy skills, than did teachers. However, differences in parent and teacher ratings of the basic numeracy and literacy subdomains did not reach significance. In terms of gender, trends suggest that parents report that boys display higher levels of language and cognitive development than teacher reports, a result that is

statistically significant for girls. Additionally, parents report that both boys and girls display higher levels of advanced literacy skills than do teachers.

Communication and General Knowledge

Parents rated children as displaying higher levels of communication and general knowledge than did teachers. Such differences remained when the analysis is disaggregated by gender.

Comparing Parents to Inexperienced Teachers

The results presented in column four of Table 2 examine whether the differences observed in the ratings of parents and teachers may be explained by the level of teacher experience. Parents and inexperienced teacher ratings of children's school readiness do not differ greatly from the overall comparison of parents and all teachers. For each of the S-EDI domains, parents consistently rate children higher than the inexperienced teachers, however not all differences are significant at the subdomain level. Differences between parent and inexperienced teacher ratings of responsibility and respect, hyperactivity and inattention, and basic literacy skills did not reach significance.

Comparing Higher Educated Parents to Teachers

The results presented in column five of Table 2 examine whether the differences observed in the ratings of parents and teachers may be explained by the level of parental education. Differences in higher educated parents and teachers ratings of children's school readiness displayed similar patterns to the overall comparison of all parents and teachers. Specifically, higher educated parents reported that children display higher levels of social competence, including approaches to learning, readiness to explore new things, and overall social competence with peers; emotional maturity, including prosocial and helping behaviour,

anxious and fearful behaviour, and hyperactivity and inattention; trends demonstrate that higher educated parents rate children as displaying higher levels of language and cognitive development, including a significant difference for the advanced literacy skills subdomain; and communication and general knowledge.

<INSERT TABLE 2 HERE>

Discussion

This study is one of the first to examine differences in multiple informants' ratings of children's school readiness. A number of key differences emerged between parent and teacher reports. Parents rated children as being more socially competent, more emotionally mature, and as displaying higher levels of communication and general knowledge than did teachers. These results are not consistent with the hypothesis that teachers would rate students higher than parents, as found in previous studies both in the United States (Salbach-Andrae et al., 2009) and Ireland (Williams et al., 2009) using normative samples. Furthermore, the discrepancies, for the most part, remained when the sample was disaggregated by gender. Parents rated boys significantly higher than did teachers on approaches to learning, and rated them significantly lower than teachers on anxious and fearful behaviour. However parents' ratings of girls' behaviour did not differ from teacher reports. Prior research indicates that there is less parent-teacher concordance for internalising behaviours such as anxiety or shyness and that girls display such behaviours more frequently than do boys (Diamond & Squires, 1993). As anxious and fearful behaviours are displayed more often in girls, observable fearful behaviours, such as crying, may in turn be more common, resulting in greater parent-teacher agreement where girls are rated on this domain. In contrast, boys'

ratings on these behaviours might be more subjective and thus lead to greater parent-teacher discrepancies.

Discrepancies also remained when the sample was analysed according to by teacher experience and parental education, suggesting that parent and teacher differences are not a function of these factors. However, there were a few notable exceptions indicating that it is important to examine whether parent and teacher discrepancies are mediated by parental education and teacher experience in studies of this nature. Such analyses may yield more reliable results in larger sample sizes. Also, it is worth noting that there was greater concordance between parent and teacher report on the language and cognitive development domain. The skills included in this domain are, for the most part, concrete academic skills, such as a child's ability to count to ten or to identify at least ten letters of the alphabet. As research indicates that outwardly observable skills have higher concordance across informants (Diamond & Squires, 1993), it may have resulted in greater parent-teacher agreement.

Differential ratings of school readiness may be a function of several sources. Perceptions of external raters are rooted in a relationship composed of multiple characteristics of the child (e.g., age, gender) and of the informant (e.g., time spent with child, feelings about the child). Ratings also are influenced by the purposes of the assessment, the informant's familiarity with the child, and the environmental conditions in which the child has been observed (De Los Reyes & Kazdin, 2005; Smith, 2007). For example, observers may rate a child differently depending on whether he or she is in the home or school environment during the assessment, depending on how long they know him or her and also on how familiar they are with his or her behaviours.

There are several possible explanations for the observed discrepancies in the current study. First, parents may perceive the same child behaviours differently than do teachers.

Teachers observe multiple children on a daily basis and over many years, whereas parents may only regularly observe their own children, other children in the community, neighbours' and friends' children. Additionally, while teachers may interact with children from a range of areas, communities and cultures, parents may only be familiar with the children living in their own area. Therefore, the frame of reference upon which assessments of child skill and behaviour are made may be different for parents and teachers.

It is also worth noting, in the frame of reference context, that this study was conducted in a disadvantaged area with above national levels of unemployment and welfare dependency (see Census Small Area Population Statistics, 2006). This may have exacerbated the above effects and may account the divergence from previous research findings. The frame of reference upon which parents are rating their children may be skewed, with parents considering their children as performing above average for the community. This might be viewed as a form of downward social comparison (Wills, 1981) as parents witnessing low levels of school readiness in the community may perceive their children as displaying higher levels of school readiness than other children living in the area. In contrast, teachers may rate children's behaviours in comparison to a larger pool of children from multiple areas, including those living in more advantaged communities who may demonstrate higher levels of school readiness. Therefore, teacher ratings may be influenced by their experience of interacting with children at difference ends of the social spectrum.

A second possible explanation for parent and teacher discrepancies in levels of school readiness is that children may be exhibiting different behaviours at school and at home. Children's behaviours, whether problematic or not, have long been conceptualised as responses to different social situations (Mischel, 1968), and therefore, parents and teachers may be rating different behaviours. For example, children may be expected to follow different rules in the home and school environment, and the consequences for their actions

may differ across contexts. Therefore, children may learn that behaviours which are acceptable at home may not be acceptable at school and vice-versa, thus resulting in different behaviours being exhibited in different environments.

Third, discrepancies in understanding lead to discrepancies in responding (King & Wand, 2006), which may be a consequence of parents and teachers having different interpretations of the survey questions. All teachers in the sample hold qualifications in education and thus are likely to have had repeated exposure to literature on teaching and educational issues. In contrast, just 14% of parents in the sample hold a post secondary school qualification or primary degree. Teachers are likely to be more familiar with questions pertaining to child development and education, and may draw from a greater knowledge base in interpreting the survey questions.

Fourth, there may be a social desirability effect, which is one of the most common sources of bias affecting survey responses (Nederhof, 2006). Parents may have provided inaccurate responses for reasons of self-presentation. In other words, they may give their children artificially high ratings of school readiness in order to present themselves as good parents whose children, as a result, possess all the necessary competencies to thrive in the school environment. Research indicates that parents may under-report their children's behaviour problems for reasons of self-presentation, particularly where aggression and attention problems are concerned (Merydith, Prout, & Blaha, 2003).

The findings of this study could be interpreted as supporting a multiple-perspective approach for the assessment of children's behaviour and of other domains of school readiness. The multiple-perspective approach has received both support and criticism in the past few years (Smith, 2007), with some researchers arguing that each informant has a uniquely important contribution to make. Verhulst, Dekker, & van der Ende (1997) evaluated the ability of parent, teacher and self-report to predict signs of maladjustment in children over

a four year time interval. Although teachers are frequently perceived as less able to assess internalising problems than mothers and the children themselves (Loeber, Green, & Lahey, 1990), Verhulst et al. (1997) show that teachers' evaluations of internalising problems were highly relevant when the ability to predict children's own perceptions of having problems was the criterion. Furthermore, Achenbach (2006) argues that various informants may contribute crucial data concerning a person's functioning, and that comprehensive assessment requires data from multiple informants.

Although teacher reports are considered, by some, to be more reliable than parent reports (e.g., Keating, 2007), inclusion of both perspectives may provide a more holistic picture of school readiness, and can highlight methodological flaws as well as potential biases that both sets of respondents bring to the assessment of children's skills. Further research has the potential to underline what these biases are, and to develop techniques to form a more reliable estimate of school readiness using multiple informants. For example, the use of anchoring vignettes is a recent technique adapted to ameliorate the problems that occur when different groups attempt to understand and use ordinal response categories (King, Murray, Salomon, & Tandon, 2004). Anchoring vignettes allow construction of a common scale of measurement across respondents and use specialised statistical methods for analysing the resulting data. A suggested challenge for researchers in the area of school readiness would be to adapt such techniques so as to create a common scale of school readiness measurement for parents and teachers.

A number of caveats are to be acknowledged in interpreting the results of the study. First, due to the relatively small sample size, it was not possible to examine some of the more complex relationships that may mediate the observed differences between parent and teacher reports of school readiness. For example, examining differential reports of school readiness by teaching experience, parental education and child gender result a relatively small sample

size to make any strong conclusions. Second, given the present data, it is not possible to determine whether teachers and parents are rating similar behaviours in a different way, whether children exhibit different behaviour in the school versus the home environment, or whether it is teacher or parent perceptions that are skewed. Furthermore, it is not possible to determine whether parent or teacher ratings are more accurate reflections of children's behaviours.

The present study also has several strengths. Firstly, the survey received a high response rate from both parents and teachers. Second, to the authors' knowledge this is the first study comparing parent and teacher ratings of school readiness in Ireland. Finally, the study highlights an important issue in survey design, the need to gather multiple proxy reports of children's behaviours in an educational context, in order to create a non-biased and holistic picture of children's school readiness. Researchers should continue to use multiple informants when collecting information about children's behaviours, as each informant may provide unique information about the child's functioning.

References

- Achenbach, T.M. (2006). As others see us: Clinical and research implications of cross-informant correlations for psychopathology. *Current Directions in Psychological Science, 15*, 94-98.
- Achenbach, T.M., McConaughy, S.H., & Howell, C.T. (1987). Child/adolescent behavioural and emotional problems: Implications of cross-informant correlations for situational specificity. *Psychological Bulletin, 101*, 213-232.
- Berk, M.L., Horgan, C.M., & Meyers, S.M. (1982). The reporting of stigmatising health conditions: A comparison of proxy and self reporting. *American Statistical Association, Proceedings of the Section on Social Statistics, 506-509*.
- Bird, H. R., Gould, M. S., & Staghezza, B. (1992). Aggregating data from multiple informants in child psychiatry epidemiological research. *Journal of the American Academy of Child and Adolescent Psychiatry, 31*, 78-85.
- Brooks-Gunn, J. (2003). Do you believe in magic? *Social Policy Report, 17*(1), 3-16.
- Cai, X., Kaiser, A.P., & Hancock, T.B. (2004). Parent and teacher agreement on child behaviour checklist items in a sample of preschoolers from low income and predominantly African-American families. *Journal of Clinical Child and Adolescent Psychology, 33*(2), 303-312.
- Census Small Area Population Statistics*, (2006). Retrieved 8 August, 2009 from the Central Statistics Office website: <http://beyond2020.cso.ie/censusasp/saps/boundaries/>
- Chen, J.J. (2008). Gender differences in externalising problems among preschool children: implications for early childhood educators. *Early Child Development and Care, 1*, 1-11.
- Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.

- De Los Reyes, A., & Kazdin, A.E. (2005). Informant discrepancies in the assessment of childhood psychopathology: A critical review, theoretical framework, and recommendations for further study. *Psychological Bulletin, 131*, 483-509.
- Diamond, K.E., & Squires, J. (1993). The role of parental report in the screening and assessment of young children. *Journal of Early Intervention, 17*, 107-115.
- Dockett, S., & Perry, B. (2004). Starting school: perspectives of Australian children, parents and educators. *Journal of Early Childhood Research, 2*, 171-189.
- Eccles, J., Wigfield, A., Harold, R.D. and Blumenfeld, P. (1993). Age and gender differences in children's self- and task perceptions during elementary school, *Child Development, 64*, 830-847.
- Epkins, C.C. (1996). Parent ratings of children's depression, anxiety and aggression: A cross-sample analysis of agreement and differences with child and teacher ratings. *Journal of Clinical Psychology, 52*, 599-608.
- Forget-Dubois, N., Lemelin, J.P., Boivin, M., Dionne, G., Seguin, J.R., Vitaro, F., & Tremblay, R.E. (2007). Predicting early school achievement with the EDI: A longitudinal population-based study. *Early Education and Development, 18*, 405-426.
- Gould, M.S. & Shaffer, D. (1985). *Correspondence of adolescent and parental reports in a child psychiatry clinic*. Paper presented at the meeting of the American Academy of Child Psychiatry, San Antonio, TX.
- Grootendorst, P.V., Feeny, D.H., & Furlong, W. (1997). Does it matter whom and how you ask? Inter- and intra-rater agreement in the Ontario Health Survey. *Journal of Clinical Epidemiology, 50*(2), 127-135.
- Hays, R.D., Vickrey, B.G., Hermann, B.P., Perrine, K., Cramer, J., Meador, K., Spritzer, K., & Devinsky, O. (1995). Agreement between self-reports and proxy reports of quality of life in epilepsy patients. *Quality of Life Research, 4*(2) 159-168.

- Heckman, J. (2000). *Invest in the very young*. Chicago, IL: Ounce of Prevention Fund.
- Janus, M., & Duku, E.K. (2007). The school entry gap: Socioeconomic, family, and health factors associated with children's school readiness to learn. *Early Education and Development, 18*(3), 375-403.
- Janus, M., Duku, E.K & Stat, E. (2005). *Development of the Short Early Development Instrument (S-EDI)*. Report for the World Bank.
- Janus, M., & Offord, D. (2000). Readiness to learn at school. *Canadian Journal of Policy Research, 1*(2), 71-75.
- Keating, D. (2007). Formative evaluation of the Early Development Instrument: Progress and prospects. *Early Education and Development, 18*(3), 561-570.
- King, G., Murray, C.J.L., Salomon, J., & Tandon, A. (2004). Enhancing the validity and cross-cultural comparability of measurement in survey research, *American Political Science Review, 98*(1), 191–207.
- King, G., & Wand, J. (2006). Comparing incomparable survey responses: Evaluating and selecting anchoring vignettes. *Political Science, 15*(1), 46-66.
- Knudsen-Lindauer, S.L., & Harris, K. (1989). Priorities for kindergarten curricula: Views of parents and teachers. *Journal of Research and Childhood Education, 4*(1), 51-61.
- Ladd, G.W. (1999). Peer relationships and social competence during early and middle childhood. *Annual Review of Psychology, 50*, 333-359.
- Lapointe, V.R., Ford, L., & Zumbo, B.D. (2007). Examining the relationship between neighbourhood environment and school readiness for kindergarten children. *Early Education and Development, 18*, 473-495.
- Loeber, R., Green, S.M., & Lahey, B.B. (1990). Mental health professionals' perception of the utility of children, mothers and teachers as informants on childhood psychopathology. *Journal of Clinical Child Psychology, 19*, 98-194.

- Loeber, R., Green, S.M., Lahey, B.B., & Stouhamer-Loeber, R. (1991). Differences and similarities between children, mothers and teachers as informants on disruptive child behaviour. *Journal of Abnormal Clinical Psychology, 19*, 75-95.
- McDowell, I. (2006). *Measuring Health: A Guide to Rating Scales and Questionnaires*. New York: Oxford University Press.
- Merydith, S.P., Prout, H.T., & Blaha, J. (2003). Social desirability and behaviour rating scales: An exploratory study with the Child Behaviour Checklist/4-18. *Psychology in the Schools, 20*, 2, 225-235.
- Mischel, W. (1968). *Personality and assessment*. New York:Wiley.
- Nederhof, A.J. (2006). Methods of coping with social desirability bias: A review. *European Journal of Social Psychology, 15*(3), 263-280.
- Pervin, L.A. (1989). Persons, situations, interactions: The history of a controversy and a discussion of theoretical models. *The Academy of Management Review, 14*, 3, 350-360.
- Piotrkowski, C.S., Botsko, M., & Matthews, E. (2000). Parents' and teachers' beliefs about children's school readiness in a high-need community. *Early Childhood Research Quarterly, 15*(4), 537-558.
- Renk, K. (2005). Cross-informant ratings of the behaviour of children and adolescents: the "gold standard." *Journal of Child and Family Studies, 14*(4), 457-468.
- Renk, K., & Phares, V. (2004). Cross-informant ratings of social competence in children and adolescents. *Clinical Psychology Review, 24*(2), 239-254.
- Rouse, C., Brooks-Gunn, J., & McLanahan, S. (2005). School readiness: Closing racial and ethnic gaps. *The Future of Children, 15*(1), 5-15.
- Salbach-Andrae, H., Lenz, K., & Lehmkuhl, U. (2009). Patterns of agreement among parent, teacher and youth ratings in a referred sample. *European Psychiatry, 24*, 345-351.

- Schwartz, N., & Wellens, T. (1997). Cognitive dynamics of proxy responding: The diverging perspectives of actors and observers. *Journal of Official Statistics, 13*, 159-179.
- Smith, S.R. (2007). Making sense of multiple informants in child and adolescent psychopathology: A guide for clinicians. *Journal of Psychoeducational Assessment, 25*(2), 139-249.
- Verhulst, F.C., Dekker, M.C., & van der Ende, J. (1997). Parent, teacher and self-reports as predictors of signs of disturbance in adolescents: whose information carries the most weight? *Acta Psychiatrica Scandinavica, 96*, 75-81.
- Webster-Stratton, C. (1996). Early-onset conduct problems: Does gender make a difference? *Journal of Consulting and Clinical Psychology, 64*, 540-551.
- Wesley, P.W., & Buyesse, V. (2003). Making meaning of school readiness in schools and communities. *Early Childhood Research Quarterly, 18*, 351-375.
- West, J., Hausken, E.G., & Collins, M. (1993). Readiness for kindergarten: Parent and teacher beliefs. Washington, DC: US Department of Education, Office of Educational Research and Improvement, *NCES*, 93-257.
- Williams, J., Greene, S., Doyle, E., Harris, E., Layte, R., McCoy, R., et al. (2009). *Growing Up in Ireland: The Lives of 9-Year Olds, Report 1*. Dublin: Government Publications.
- Wills, T. A. (1981). Downward comparison principles. *Psychological Bulletin, 90*, 245-271.
- Winsler, A., & Wallace, G.L. (2002). Behaviour problems and social skills in preschool children: Parent-teacher agreement and relations with classroom observations. *Early Education and Development, 13*(1), 40-58.
- Yang, Y., Huijun, L., Zhang, Y., Tein, J., & Liu., X. (2008). Age and gender differences in behavioural problems in Chinese children: Parent and teacher reports. *Asian Journal of Psychiatry, 1*, 42-46.

Table 1

Intercorrelations between S-EDI domains

S-EDI Domain	N		Social Competence		Emotional Maturity		Language and Cognitive Development	
	Parent	Teacher	Parent	Teacher	Parent	Teacher	Parent	Teacher
Social Competence	92	101						
Emotional Maturity	92	99	.53***	.80***				
Language and Cognitive Development	90	92	.48***	.69***	.33**	.48***		
Communication and General Knowledge	94	101	.29**	.50***	.16	.43***	.37***	.53***

** $p < .01$; *** $p < .001$

Table 2

Wilcoxon signed-ranks scores for comparisons of teacher and parent ratings

<i>S-EDI Domains and Subdomains</i>	All Children	Boys	Girls	Parents vs. Inexperienced Teachers	Higher Educated Parents vs. Teachers
Parent Ratings – Teacher Ratings					
<i>Social Competence</i>	5.42***	4.29***	3.35***	3.99***	2.40*
Responsibility and Respect	0.88	1.13	0.01	0.23	1.16
Approaches to Learning	2.49**	3.02**	0.00	2.20*	2.31*
Readiness to Explore New Things	3.57***	3.14**	1.81 [†]	3.90***	2.83**
Overall Social Competence with Peers	7.40***	5.45***	4.99***	4.66***	5.98***
<i>Emotional Maturity</i>	6.18***	5.27***	3.26***	4.47***	3.49***
Prosocial and Helping Behaviour	4.30***	3.31***	2.64**	3.05**	3.25***
Aggressive Behaviour	-1.19	-1.14	-0.55	-0.55	0.17
Anxious and Fearful Behaviour	-3.64***	-4.14***	-0.55	-3.34***	-2.04*
Hyperactivity and Inattention	-5.08***	-3.99***	-3.15***	-1.41	-4.91***
<i>Language and Cognitive Development</i>	1.76 [†]	1.69 [†]	0.69*	2.21*	0.53 [†]
Basic Literacy Skills	1.22	1.12	0.59	1.35	0.83
Advanced Literacy Skills	4.59***	4.26***	2.87**	3.16**	2.91**
Basic Numeracy Skills	0.52	0.01	0.79	0.95*	0.22
<i>Communication and General Knowledge</i>	7.49***	5.50***	5.09***	4.23***	3.99***

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

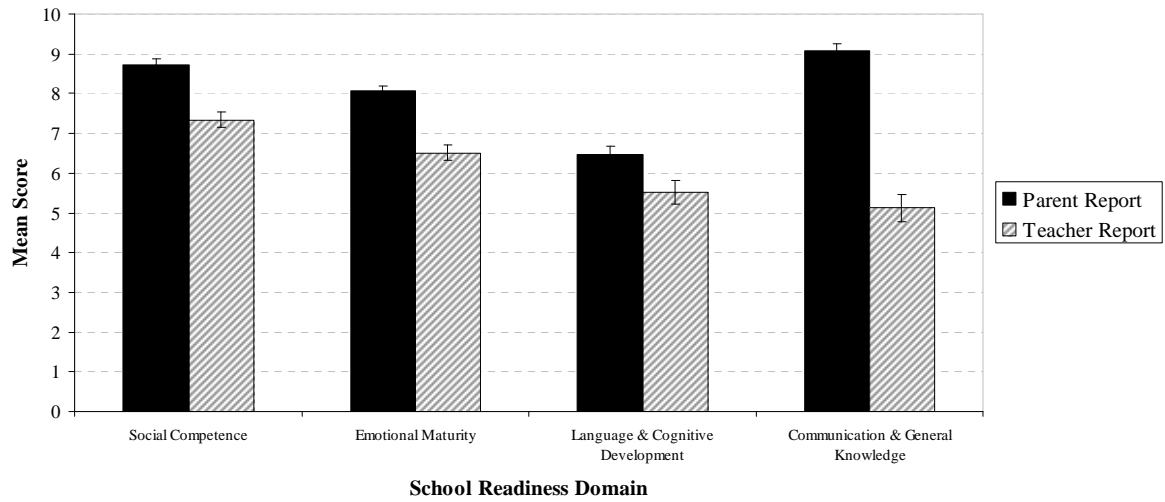


Figure 1. Parent and teacher reported means (+SD) for each S-EDI domain.