APPENDIX 3

Qualitative Comparative Analysis of the case study interview data

As explained in Chapter 1, the interview data were analysed using thematic analysis (Braun and Clark, 2006). However, we also used Qualitative Comparative Analysis (QCA) (see Ragin, 1987; 2000) to explore possible causal relationships between the themes identified through the thematic analysis.

QCA is a method of evaluating qualitative data that explores the causal relationship between conditions and outcomes using Boolean algebra to implement principles of comparison and is based on set theory. In QCA, every case (in this instance a school) is conceived as a combination of conditions and one particular outcome. QCA enables the identification of conditions (or combinations of conditions) that are necessary and/or sufficient for an outcome to occur.

The outcome of focus for the QCA was the support provided to schools by external agencies (social care, education and LSCB in particular). Specifically, the QCA examined whether:

1. the identified congruence between social care, education and LSCB impacted the support provided to schools by those agencies;
2. there were other factors which affected the support schools received from external agencies;
3. better support from external agencies had an impact on schools’ experience of referrals or the degree to which thresholds are understood in schools.

To do this, the interview data were used to create outcome sets. Some sets were defined as crisp sets (which means membership values are either 0 or 1: a school is either a full member of the set or is not) while others were fuzzy sets (where there were five degrees of membership). The interview data were used to score four fuzzy outcome sets (experience of inter-agency working, interaction with LSCB, level of support from the local authority, experience of referrals) and two crisp sets (clarity of thresholds and knowledge of threshold document). The set definitions for the four fuzzy outcome sets are provided in the Table A3.1.

We then defined several conditions that might impact these outcomes (including area congruence, academy status, deprivation, social worker turnover, school phase and Ofsted rating).
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There are two main measures for the parameters of fit in QCA: consistency and coverage. Consistency represents the extent to which a causal combination leads to an outcome and ranges from 0 to 1. With crisp set outcomes, it is calculated as the proportion of cases with a given causal combination that are also in the outcome set. For fuzzy outcome sets the concept is the same, although the calculation is more complex (Legewie, 2013). Coverage represents the proportion of cases with the outcome that are represented by a particular causal condition. We used fsQCA software for analysis (Ragin et al, 2006).

### Table A3.1: QCA set definitions

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<thead>
<tr>
<th>Outcome/condition</th>
<th>Description</th>
<th>Anchor points</th>
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| Experience of inter-agency working | Is there evidence that the DSL feels school is treated as an equal partner, is able to access 'most' agencies and says communication works well? | 0: DSL mentioned engaging in multi-agency working and reported mainly negative experiences.  
0.5: DSL mentioned engaging in multi-agency working but was neutral/mixed in their experiences.  
1: DSL mentioned engaging in multi-agency work with a number of agencies and reported overall positive experiences. |
| Interaction with LSCB       | Is the DSL aware of the LSCB role in training and audits, and are they engaged in LSCB activities and resources? | 0: DSL was not aware of LSCB role beyond vague mention of training or audits.  
0.5: DSL was engaged with LSCB but not aware of all functions.  
1: DSL mentioned LSCB involvement in training, audits and other engagement. |
| Level of support from local authority | Does the DSL think the local authority provides accessible and useful advice and good support for DSLs (including network meetings, supervision)? | 0: DSL reported that the support received from the local authority was inadequate or non-existent.  
0.5: DSL reported some support from local authority but quality was inconsistent.  
1: DSL reported receiving good and consistent support from the local authority. |
| Experience of referrals     | Are referrals dealt with in a responsive/timely manner, with clear school involvement, and good communication/feedback? | 0: DSL was negative about all aspects of the referral process.  
0.5: DSL had mixed experience of referrals, with some positive and some negative comments.  
1: DSL was positive about referrals in terms of responsiveness/timeliness, communication, actions and feeling engaged/involved in the process. |
As recommended in Schneider and Wagemann (2010), we first tested each of the outcomes for necessary conditions. None of the outcomes had any necessary conditions.

Truth table analysis was undertaken for each outcome, first with only the congruence and academy sets, then with congruence and other outcomes, and lastly with any combinations of conditions and outcomes which had resulted in a solution with consistency score of more than 0.8. This same analysis was undertaken on the negation of each outcome.

The analysis used the following simplifying rules:

- each causal combination had to have more than one member (which meant excluding any recipes with 1 or 0 occurrences);
- any causal combination with consistency of 0.75 or more was taken to be initially consistent with the outcome, unless there were multiple consistency scores of 0.85 or more, in which case anything under 0.85 was treated as inconsistent;
- the overall solution consistency should be equal to or above 0.8, with coverage over 0.5 to be deemed to have sufficient explanatory power for the solution to be worth reporting.

Where QCA found a notable relationship following these rules, it is reported in the text of the book. Only two outcomes were found to have causal relationships by the QCA:

- level of support from local authority and interaction with LSCB; and
- experience of referrals and experience of inter-agency working.

The consistency and coverage scores for these relationships are provided in the main body of the book along with XY plots of the fuzzy sets. Single points in the plot show individual cases. Cases sharing the same values are combined to a single, larger point.