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# **UNIVERSITY OF SOUTHAMPTON**

## **FACULTY OF SOCIAL, HUMAN AND MATHEMATICAL SCIENCES**

School of Psychology

**Exploring the Influence of the Teacher on Support for Pupils with Selective Mutism**

By

**Claire Elizabeth Williams**

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## **ABSTRACT**

### **FACULTY OF SOCIAL, HUMAN AND MATHEMATICAL SCIENCES**

#### **Psychology**

Thesis for the degree of Doctorate in Educational Psychology

### **EXPLORING THE INFLUENCE OF THE TEACHER ON SUPPORT FOR PUPILS WITH SELECTIVE MUTISM**

Claire Elizabeth Williams

Selective mutism (SM) is a rare condition of early childhood characterised by a lack of speech in certain social situations where it is expected (usually at school). SM shares many characteristics with social anxiety and is associated with a range of academic and social impairments. Several reviews have explored the literature to identify which treatment modality for SM is most effective. These reviews have not considered what factors might moderate outcomes but recent frameworks suggest that informant discrepancies in report measures might potentially moderate the perceived success of an intervention. The present study reviewed 11 studies to explore differences between the perceptions of change in a child's behaviour as reported by parents versus teachers following psychosocial interventions for SM. In the reviewed studies, parents and teachers were asked to independently rate outcomes relating to speech and / or a child's affective state. Patterns in informant discrepancy varied with speech outcomes showing greater informant correspondence than affective outcomes. Implications from these findings include the recommendation that teachers are well positioned to monitor the outcomes of SM interventions and that intervention should be designed to target affective outcomes in addition to speech.

Despite the implication that teachers have a significant role to play in intervention relatively little is known about how this group's perceptions of SM impact on the support pupils receive. In order to address this the empirical paper used qualitative, grounded theory methods to construct an explanatory theory to represent primary school teachers' experiences of working with pupils with SM. Eleven participants (3 male) were interviewed following a semi-structured interview approach. Transcripts of each interview were analysed using a social constructionist approach to grounded theory. The theory captured five core categories which linked together to show the key aspects of the participants' experiences. 1) *Categorisation*: Teachers' beliefs about SM caused them to place the behaviour into specific categories of understanding. 2) *Teacher as a Scientific Enquirer*: Teachers engaged in a process of enquiry, generating hypotheses and testing them to better understand the pupil. 3) *Supporting Pupils*: These two processes impacted on the type of support teachers put in place. 4) *Measuring and Monitoring*: captured the impact of monitoring pupil progress and the teachers' desired outcomes. 5) *Responding Emotionally*: These interlinked processes produced an emotional response in the teacher. Participants' experiences of the five core categories were influenced by four contextual factors including 1) the *Pupil's Profile*, 2) their *Peer Relationship*, 3) the teachers' *Staff Relationships* and 4) the *Staff Self-Identity*. The findings suggested that the teacher's categorisation of SM influenced the support they put in place for pupils. Categorisation can be altered through the process of Scientific Enquiry. Teachers need access to accurate information about SM in order to develop their categorisations and improve their support strategies. Educational Psychologists are well-placed to provide support with this.



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## DECLARATION OF AUTHORSHIP

I, **Claire Elizabeth Williams** declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

**Thesis title: Exploring the Influence of the Teacher on Support for Pupils with Selective Mutism**

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. (Delete as appropriate) None of this work has been published before submission (or) Parts of this work have been published as: (please list references below):

Signed: .....

Date: .....



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## **Abbreviations**

ABC model – Attribution Bias Context model

ASEBA - Achenbach System of Empirically Based Assessment

CAMHS – Children and Adolescent Mental Health Service

CBCL – Child Behaviour Checklist

CBT – Cognitive behavioural therapy

CGAS - Clinical Global Assessment Scale,

CGI- S/I - Clinical Global Impression Severity / Improvement scale

DSM – Diagnostic Statistical Manual of Mental Disorders

EIP – Evidence informed practice

EP – Educational Psychologist

GAS - Goal Attainment Scaling

PCS-C Perceived Competence Scale for Children

RCT – Randomised control trial

SAD – Social anxiety disorder

SALT – Speech and Language Therapist

SBF - Severity of Behaviour Form

SENCo – Special Educational Needs Coordinator

SM – Selective mutism

SMQ – Selective Mutism Questionnaire

SNAP - Strong Narrative Assessment Procedure

SSQ – School Speech Questionnaire

STAIC-P - State Trait Anxiety Scale for Children – Parent version

TA – Teaching assistant

TRF – Teacher Report Form

UK – United Kingdom

WLC – Wait list control



# **Chapter 1: Exploring Teacher and Parent Perceptions of Change Following Psychosocial Interventions for Children and Young People with Selective Mutism**

## **1.1 Introduction**

Selective mutism (SM) is characterised by the lack of speech in situations where it is expected and the child or young person is physically capable of speaking (e.g. in school), and where fluent speech is evident in other circumstances (e.g. at home), (Muris & Ollendick, 2015). There are no recent reports on the prevalence of SM in the United Kingdom (UK). Some researchers have provided data from America (Bergman, Piacentini & McCracken, 2002) and Israel (Elizur & Perednik ,2003) which suggest it occurs in less than 1% of the population. The age of onset is typically before five years, although the nature of SM means these statistics are likely to represent when the behaviour is first detected, on commencing school (Cohan, Chavira, & Stein, 2006) and where the teacher represents the figure children are least likely to talk to (Sharkey & McNicholas, 2008). SM becomes less common with age and it is suggested that it can spontaneously improve in some children, but some degree of impairment often remains and intervention improves outcomes (Bergman et al., 2002; Cohan et al., 2006).

### **1.1.1 Classification of SM**

SM is classified as an anxiety disorder in the Diagnostic Statistical Manual of Mental Disorders, fifth edition (DSM-5, American Psychiatric Association (APA), 2013). The described characteristics of SM are: that the mutism lasts longer than a month, is not associated with the onset of formal education, is not better explained by an unfamiliarity with the language required in the social situation and is not better accounted for by other recognised circumstances or communication difficulty (such as autism), (APA, 2013, p. 195-197). This diagnostic criteria was outlined in both the DSM-IV (APA, 1994) and DSM-IV-TR (APA, 2000). In both earlier editions SM was categorised as 'Other Disorders of Infancy, Childhood, and Adolescence'. However, the DSM-5 signified a change in the categorisation of SM, being listed as an anxiety disorder (APA, 2013). This classification change reflects a body of literature which has found a strong positive association between SM and other anxiety disorders, where this link is most evident with social anxiety disorder (SAD). SAD is characterised by typically shy behaviour with new people,

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discomfort interacting with others and fear of negative evaluation (Stein & Stein, 2008). Vecchio and Kearney (2005) found that a sample of 15 children (aged 4 to 10) with a diagnosis of SM all met the additional diagnostic criteria for SAD. Consistently, Muris and Ollendick (2015) systematically reviewed 21 papers regarding the relationship between SM and anxiety and concluded that “it is evident that anxiety -and social anxiety in particular—is a prominent feature of children with SM” (Muris & Ollendick, 2015, p.7).

### **1.1.2 Impact on Children and Young People**

Researchers have highlighted an impact of SM on different elements of development, including deficits in phonemic awareness and grammar. For example, Manassis et al. (2007) found that a sample of 44 children with SM (aged 6 to 10) performed significantly worse on a measure of receptive language and non-verbal working memory compared to those diagnosed with another anxiety disorder (e.g. separation anxiety) and a non-clinical control group. Communication and social interaction difficulties persist into adulthood for individuals who were selectively mute during childhood. Remschmidt, Poller, Herpertz-Dahlmann, Hennighausen and Gutenbrunner (2001) conducted a follow up study of 41 adults, 12 years after being referred to a clinic for SM. At follow up 61% reported that they had experienced communication problems throughout their lives. The adults rated themselves as less independent, less academically motivated, less confident and less mature, compared with a matched control group of adults diagnosed with other emotional disorders.

### **1.1.3 Etiology**

A single, underlying cause for SM has not been identified and researchers have highlighted a complex set of genetic and environmental factors leading to its onset (review by Viana, Beidel & Rabian 2009). With respect to genetic risk, DNA comparisons of families with an offspring with SM have linked the CNTNAP2 gene (also associated with developmental language delay in autism and specific language impairment) with SM (Stein et al., 2011).

In addition to genetic risk, SM has been associated with family systems (Sharkey & McNicholas, 2008). Excessively controlling parenting styles which foster overdependence can lead a child to believe they need their parent to help them function in social situations, and become anxious and avoidant when they are absent (Wong, 2010). Alternatively, a shy or anxious parent may transmit their fear for social interaction vicariously to their child (Murray et al., 2008). Furthermore it has been suggested that instances of parental mental health difficulties, including depression and social phobia are frequently found in families where a child is selectively mute (Alyanak et al., 2013).

Traumatic childhood experiences have also been attributed to the onset of SM. Suggested events include bereavement, hospitalisation or moving home (Black & Uhde, 1995). An underlying trauma or an unresolved childhood conflict is usually considered in a psychodynamic model of SM, however, the evidence to link the incidence of negative life events to the onset of SM is lacking (Busse & Downey, 2011).

Behavioural psychologists view SM as the result of a series of conditioning events that serve to maintain the behaviour. A specific event triggers the first instance of mutism, such as not talking to an unfamiliar adult. The response the child receives reinforces the behaviour (Cohan et al., 2006). It has been proposed that avoidance of speech is a mechanism to reduce anxiety in social situations. Young, Bunnell and Beidel (2012) compared measures of physical arousal (e.g. heart rate) during a social interaction task for a group of 10 children with SM, to a group of 11 children with social phobia and a control group of 14 children with no diagnosis (age range 5 to 12). The SM group experienced less physical arousal than the other groups. The authors attributed this to the fact that the children with SM had acquired a successful method of avoidance which served to reduce anxiety in stressful situations.

Furthermore individuals around the child attempt to provide support by responding to nonverbal cues and reducing the expectations for a verbal response (Krysanski, 2003). This response serves to reinforce behaviour through the successful avoidance of speech.

#### 1.1.4 Intervention

Etiological theories about SM have resulted in a range of different intervention approaches that focus on increasing speech or creating the circumstances in which the child feels comfortable speaking. The broad aim of these different approaches is to increase speech and reduce impairment to the child's social functioning (Muris & Ollendick, 2015).

In psychodynamic practice (e.g. art therapy) the therapist explores the child's unconscious or unresolved conflicts. This may relate to a traumatic event, or family dynamics. Once known, the therapist can help to resolve these (Busse & Downey, 2011).

Systems approaches focus on the people and environmental influences on the child, targeting the skills and knowledge of supporting adults. The overall aim is to change interaction styles which may inhibit the child's speech or reinforce the avoidance of speech. Schools are a key system for a child with SM and staff should be included in this approach (Zakszuki & DuPaul, 2017).

The prevalence of pharmacological approaches to treat SM has increased as the link between SM and anxiety has been strengthened. These are used in situations where SM persists despite psychosocial intervention. Drugs associated with reducing anxiety, such as selective

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serotonin re-uptake inhibitors are often prescribed. (Review by Manassis, Oerbeck, & Overgaard, 2016).

Cognitive interventions remain the first treatment of choice for anxiety in children and adolescents (James, James, Cowdrey, Soler & Choke, 2015). This includes cognitive behavioural therapy (CBT). CBT typically represents a manualised approach to intervention where the child is asked to take part in a fixed number of sessions designed to alter their behaviour and to get them to think in different ways (Pionek-Stone, Kratochwill, Sladezcek, & Serlin, 2002). For example, experiencing slightly fearful situations and then recognising that the feeling of anxiety can be overcome.

Behavioural techniques are designed to tackle learnt behaviours of avoiding speech to manage feelings of anxiety or to gain attention from others (Cohan et al, 2006). A number of different approaches are involved in behavioural interventions, including environmental techniques, as well as the development and reinforcement of desired behaviours. With respect to environmental methods, hierarchical / graduated exposure creates a programme of gradually increasing fearful scenarios for the child. These are then experienced sequentially. The child develops an understanding that feelings of anxiety can be overcome. Similarly in stimulus fading a fearful stimulus is gradually entered into a comfortable context over time. For example, the child conducts an activity with someone they feel comfortable talking to and then in later sessions have the teacher sit nearby, and then become more involved over time. Another environmental adjustment is defocused communication. This involves adapting the communication style so the child feels more comfortable, such as sitting next to them rather than opposite.

Social skills training aims to teach the child how to respond in an appropriate way to social situations and involves practicing a skill before entering the targeted environment (e.g. responding to a question in class). There are several approaches which can be used in this method. Priming involves previewing a social scenario to the child with someone they feel safe with. Modelling demonstrates the desired behaviour. Role play provides the opportunity to practice this in a safe context. Shaping encourages the child to practice the sounds they need for the words used, gradually moving from mouthing to whispering to speaking quietly. Prompting provides the child with verbal and nonverbal reminders of the skills needed when they are in the targeted context.

Once behaviours have been developed then further approaches aim to reinforce them. Contingency management involves rewarding the child for behaving in a desired way. Progressive steps towards speech in the target situation are rewarded with a hierarchy of gradually increasing rewards chosen with the child.

### 1.1.5      **Reviews of Intervention Approaches**

There are several reviews that have explored the relative effectiveness of different intervention approaches for SM. The purpose of these reviews ranges from summarising the intervention literature, to identifying which treatment modality provides the best outcomes for children with SM. Reviews typically provide a descriptive overview of intervention studies (see Krysanski, 2003; Standart & Le Couteur, 2003; Viana et al., 2009; Wong, 2010), and some include a systematic review of this evidence base.

Anstendig (1998) conducted a narrative review of 24 intervention studies published between 1980 and 1996. The review aimed to summarise and compare treatment modality. Studies represented psychodynamic, family systems, behavioural, pharmacological and multimodal approaches. Behavioural interventions were the most commonly reported ( $n = 18$ ). The review highlighted the methodological strengths in these studies and concluded that the behavioural approach effectively improved speech. Building on this narrative review Pionek-Stone et al. (2002) carried out an exhaustive search and meta-analysis of studies that described an intervention for SM. Effect sizes were calculated to represent the magnitude of improvements in speech from baseline to post treatment. The authors were able to calculate and compare effect sizes for 20 out of 114 studies. Analysis showed that intervention yielded better outcomes than no intervention and that intervention was more effective the closer it began to the onset of SM. Behavioural intervention studies were the most frequently reported, with an insufficient number of studies from other modalities to make a statistical comparison.

Later reviews have continued to find that behavioural intervention studies dominate the literature base. Cohan et al. (2006) carried out a systematic, narrative review of 23 psychosocial studies of intervention for SM published between 1990 and 2005. It found that 10 used a behavioural / cognitive behavioural approach which reported successful improvements in speech outcomes. The authors highlighted that the majority of the reviewed literature consisted of uncontrolled case studies and single-participant experiments with weak methodological rigour. Behavioural intervention studies had relatively stronger methodology. The authors therefore concluded that the positive results of behavioural studies could be accepted with greater confidence.

More recently, Zakszeski and DuPaul (2017) conducted a systematic review of 21 intervention studies for SM published between 2005 and 2015. This included two randomised control trials (RCTs). RCTs minimise the impact of confounding variables, including researcher bias. Therefore greater causality can be inferred from any relationship between the independent and dependent variables (Cartwright, 2010). Their conclusions were consistent with previous reviews; despite the inclusion of RCTs the methodological quality of the majority of the literature

limited the ability to draw generalisable conclusions about effectiveness of treatment approaches for SM.

### 1.1.6 Informant Discrepancies

The existing evidence base suggests that intervention improves outcomes and specifically interventions with behavioural elements are effective at improving verbal communication in children with SM. Further comparisons with other modalities have not been possible due to the lack of methodological rigour in the extant literature. Descriptive and narrative reviews have assessed the issue of intervention modality for a number of years, drawing similar conclusions. Other factors which may moderate the perceived effectiveness of interventions have yet to be explored.

Intervention efficacy is determined by the outcome measure researchers put in place. A key factor affecting intervention outcomes is how these are assessed, and who provides the information about change (De Los Reyes, 2011). Of the previously discussed reviews none detailed who rated the intervention outcomes, or reflected on any similarities or discrepancies in the ratings of different informant groups. Discrepancies in informant ratings of social, emotional and behavioural issues for children is well established and have been found in most rating methods (Achenbach, 2006); even when parallel measures that aim to capture different perspectives of the same outcome are reliable and valid (De Los Reyes & Kazdin, 2005.) Such discrepancies are often treated as an error in measurement and are overlooked rather than becoming a direct variable of interest. However, identifying patterns in discrepancies helps to generate hypotheses as to how interventions will affect the targeted outcome behaviour and to inform intervention choice moving forward (De Los Reyes & Kazdin, 2005). Exploration of this issue within the SM literature will have significant implications for future intervention design and monitoring of outcomes.

De Los Reyes and Kazdin (2005) developed an explanatory theory for informant discrepancies. Having reviewed existing literature, and drawing on socio-cognitive theories (e.g. the actor-observer phenomenon) they proposed the Attribution, Bias, Context (ABC) Model. This model suggests that informant discrepancies arise when informants differ on: A) the cause they *attribute* to the behaviour being assessed. Teachers and parents are more likely to link a behaviour to a child's disposition, whilst a child is more likely to link their behaviour to an external cause. B) *Biases* the informant holds regarding which behaviours justify intervention. The perspective the informant takes can influence the memories they access, with those more likely to support their perspective being activated. C) The *context* where the behaviour is observed. Informant discrepancies occur when informants observe a child in different contexts. Their ratings

reflect differences in the child's behaviour in these settings ( Achenbach, McConaughy, & Howell, 1987). SM is characterised by speech in some social contexts but not others, with speech most commonly being withheld at school. Some parents will not experience withholding of speech first hand (Viana et al., 2009). As such, parent and teacher informants may provide discrepant ratings because they are based on observations of different behaviour in different settings.

Despite the recognition that informant discrepancies exist in ratings of children's social, emotional and behavioural issues, the potential for this to influence outcome measures for SM interventions has yet to be reviewed. Informant discrepancies occur between all rating groups, including clinicians and self-reports (Achenbach, 2006). However, the ABC model provides a theoretical rationale to suggest that differences between teacher and parent ratings are likely due to the different contexts in which they interact with the child. The comparison of these two groups should therefore be a primary area of focus.

### **1.1.7 The Role of Educators Within SM Intervention**

It has been suggested that teachers should play a greater role in the assessment and delivery of intervention for SM (Busse & Downey, 2011; Zakszeski & DuPaul, 2017). Teachers are well placed to assess and support SM as parents may be reluctant to look for support due to perceived stigmas about mental health, their own shyness or because their experience of the child's communication at home means they do not perceive it to be a significant concern (Martinez et al., 2015).

Current legislative and political agendas within the UK also impact on teachers' future roles in school based interventions. The introduction of the Special Educational Needs and Disability Code of Practice: 0 – 25 years (Department for Education & Department for Health, 2014) saw the class teacher role take on greater responsibility for the identification and support of children who experience barriers to learning. Furthermore, UK schools have been encouraged to do more to support children's social, emotional and mental health in order to free up resources for stretched specialist Children and Adult Mental Health Services (CAMHS: Salmon & Kirby, 2008). Given that they are likely to be increasingly involved in the delivery and monitoring of SM intervention it is prudent to explore the outcome ratings made by teachers and to consider how this could impact on future intervention design and monitoring in school settings.

### **1.1.8 Aims and Objectives**

This review builds on existing narrative accounts that have considered the impact of interventions for SM in childhood to specifically investigate teacher and parent reports of outcomes following an intervention. The present systematic review evaluated outcomes from

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intervention studies for children and young people with SM, where a measure of change was provided by both by parents and teachers. A narrative approach was used and outcomes were critically explored through the following questions. 1) What outcomes are teachers and parents asked to report to understand change following an intervention for SM? 2) What measures are used to assess outcomes? 3) What outcomes do parents and teachers report and are there extant similarities and differences?

The objectives of the review were: 1) to identify all available literature where parents and teachers contributed to an outcome measure of a psychosocial intervention for SM using a systematic search; 2) to critically appraise the quality of the evidence; 3) to draw conclusions which inform the design of future studies of SM and school based intervention. The relevance of the findings to school based practitioners was emphasised due to the increasing role they play in the assessment and intervention for SM (Martinez et al. 2015).

## 1.2 Method

### 1.2.1 Search Strategy

A search was carried out using the online databases, Psych Info and Medline (via EBSCO), Web of Science (Core Collections) and ERIC. Search terms were generated by looking at terms used in previous systematic reviews and by key word identifiers assigned to prominent articles in the literature base (e.g. Muris & Ollendick, 2015). The search terms used were 'selective mutism' OR 'elective mutism' OR 'mutism' AND 'intervention' OR 'treatment' OR 'therapy' AND 'children' OR 'infants' OR 'adolescents'. (See Appendix A for the search strategy). Further articles were found following a manual search of the reference lists of articles included in this review. A search strategy following the stages suggested by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses group was followed (PRISMA: Moher, Liberati, Tetzlaff, Altman & The PRISMA Group, 2009). The stages of the search are shown in Figure 1.

### 1.2.2 Inclusion and Exclusion Criteria

Limiters were applied to all databases to identify articles written in English and published in peer reviewed journals. Studies written in other languages, unpublished theses, book chapters, review articles and conference proceedings did not appear in the search. A time limit between 1994 and 2017 was used to refine the search. The diagnostic criteria of SM changed in the publication of the DSM IV (APA, 1994). The term was altered from 'elective' mutism to 'selective' mutism as the former was felt to suggest the child intentionally withholds speech and drew associations with defiant behaviour. 'Selective' placed less emphasis on motive and highlighted

that speech occurs in particular contexts (Muris & Ollendick, 2015). The present review aimed to examine literature that was in keeping with this conceptualisation.

The initial search yielded 631 records, of which 408 remained after duplicates were removed. The titles and abstracts of these articles were scrutinised to see if they met the inclusion and exclusion criteria. 334 records were removed. Twenty-nine out of the remaining 74 articles related to an intervention study with a measurable change of SM. These were scrutinised in detail. Eleven of these satisfied the inclusion and exclusion criteria and were carried forward for further review (See Appendix B).

The inclusion and exclusion criteria were:

#### **1.2.2.1 Participants.**

Studies were included if they involved participants aged 0 to 18. Participants in the study were required to demonstrate behaviour consistent with the definition of SM in the DSM 5 (APA, 2013). Studies where the mutism had a medical basis (e.g. a brain tumour) or where a medical condition was comorbid (e.g. epilepsy) were excluded. A diagnosis of SM was not required. Studies were excluded if the participants were described to be generally anxious, but not specifically selectively mute.

#### **1.2.2.2 Study design.**

Any intervention study was included due to the limited range within the extant literature. The low prevalence of SM often limits researchers to a single subject design.

#### **1.2.2.3 Intervention type.**

Studies were included if the intervention focused on SM. Studies which described an intervention programme targeting anxiety disorders generally were excluded. All psychosocial intervention studies were eligible for inclusion. This included cognitive, behavioural, systems therapy, play therapy and psychodynamic approaches. Pharmacological interventions were not eligible as this approach could not be delivered within a school setting and did not meet the objectives of this review. Multi-modal approaches which combined pharmacological with psychosocial intervention were included.

#### **1.2.2.4 Outcome rater.**

Studies were included if outcomes were rated by both parents and teachers. Studies where outcomes were measured by a therapist, parent, teacher or participant only were excluded. All other combinations of the aforementioned groups, except for parent and teacher were excluded.

#### **1.2.2.5      Outcome measurement.**

Studies which described a visual or statistical measure of change made by a parent and teacher were included in the review. Case studies which only provided narrative descriptions were excluded as these were open to bias from the study author who often acted as the intervention facilitator. One study was included where the author described that they gathered information from teachers and parents systematically but only narrative data is provided for teachers (Ooi, Raja, Sung, Fung, & Koh, 2012). Given the depth of this information and quantifiable data from parents it was judged to be satisfactory to be included. Fisak, Oliveros and Ehrenreich (2006) collected standardised outcome measures from parents and teachers pre-treatment and intended to repeat post-treatment but changed their outcome measure to a clinician rating later in the study. The information gathered from parents and teachers pre-treatment, and the nature of the measures were deemed relevant to the review and it was included.

#### **1.2.3      Information Extraction**

Of the final 11 articles with a parent and a teacher rating of outcomes the following information was extracted: 1) participant descriptors: including age, gender and nationality, 2) location details: including country and setting of the intervention, 3) study design, 4) intervention descriptors: including type, duration and facilitator, 5) outcome measure descriptors: including time made and by whom, 6) reported outcomes.

#### **1.2.4      Quality Check**

Articles were rated with a quality checklist by Downs and Black (1998). Assessment of study quality helped to place weight on the findings of each study. The checklist by Downs and Black was chosen over other available checklists (e.g. Critical Appraisal Skills Programme, 2014; Gough, 2007), as it is designed for use with randomised and non-randomised studies and it contained questions relating to data reporting which highlighted the disparity in the methodology of the studies. The checklist is made up of 27 questions, grouped into four categories; quality of reporting, external validity, internal validity and power. The full scale produces a total of 32 points (Appendix C). The total score has been shown to have good internal consistency as do all subscales, except 'external validity'. The reliability of the subscales varies between good (internal consistency subscale) to poor (external validity subscale), (Downs & Black, 1998).

The checklist was originally designed to be used with studies for health-care interventions. The wording of several items was therefore clinical. Given that several studies in the present

review delivered intervention in a clinical setting it was felt that this was appropriate. Some criteria were too medical in nature and were not applicable to any study (e.g. question 13, see Appendix D). Such questions were consistently assigned a score of 0 so as to not influence the validity of the scale. The scores for each study against each scale item can be seen in Appendix D. Total scores are reported in Table 1.

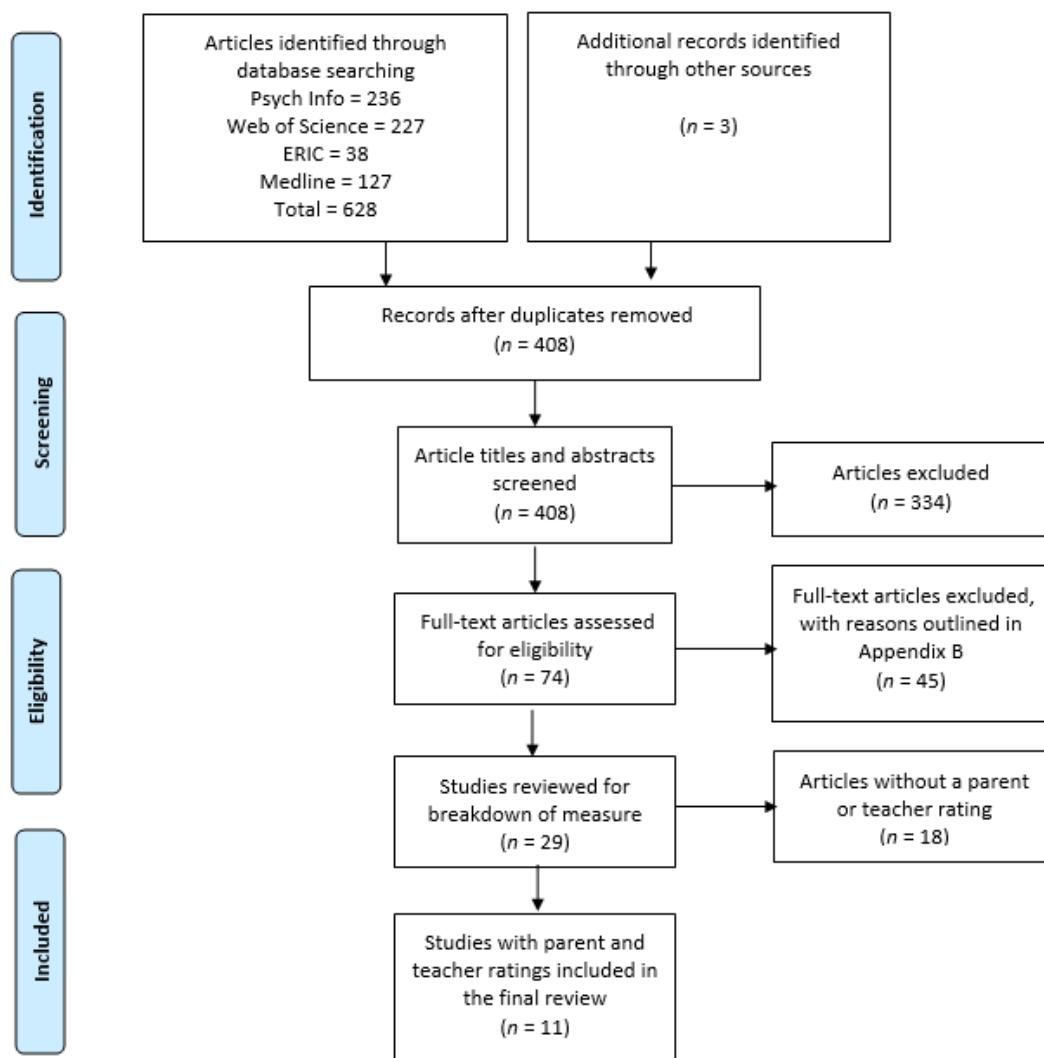


Figure 1. PRISMA flow diagram to illustrate the stages of the systematic search (Moher et al. 2009)

## Chapter 1

Table 1

*Psychosocial intervention studies for children and young people with SM from 1994- 2017, with a parent and teacher measure of outcome.*

Authors	Country	Study design	Type of intervention	Population and demographics	Delivery	Outcome measures	Results	Quality rating <sup>a</sup>
1. Klein, Armstrong, Skira & Gordon (2016)	USA	Pilot study. Within group design with blinded pre and post testing.	Social Communication anxiety treatment (SCAT) (involving elements of defocused communication CBT and systems approaches).	33 children with SM, mean age 6.68, 60% female. 76% Caucasian, 3% African American, 18% Asian, 3% Biracial. All children had received a diagnosis of SM and behaviour was consistent with the criteria set out in the DSM 5.	Therapist led sessions once every 3 weeks in a therapeutic play room. Parents supported at home and there were weekly phone calls between parent and therapist. Children progressed in therapy when they had met predetermined treatment goals.	Parents: CBCL, SMQ Teachers: CBCL	Measures were taken at pre-treatment, weeks 3, 6 and 9 and follow up at week 15. SMQ mean total scores and all subscale scores showed significant improvement in speaking frequency from pre-test to follow-up with large effect sizes. Children with less symptom severity made greater gains. There was a significant decrease in CBCL anxiety and withdrawal subscale ratings measured by parents' post-intervention with a medium effect size. Teacher ratings did not show a significant change in anxiety.	21
2. Oerbeck, Stein, Pripp & Kristensen (2015)	Norway	Follow up to a randomised control study.	See Oerbeck et al. (2012).	See Oerbeck et al. (2014).	Follow up data gathered one year after the end of treatment. No additional therapy was given before follow up. (See Oerbeck et al. 2014 for intervention details)	Parent: SMQ Teacher: SSQ	Parents and teachers indicated improvements in speech were maintained as rated with the SMQ and SSQ. The teacher rated SSQ had a significant interaction with age, suggesting they rated more improvements with younger learners. Parents also reported this trend on the school subscale of the SMQ.	18

Authors	Country	Study design	Type of intervention	Population and demographics	Delivery	Outcome measures	Results	Quality rating <sup>a</sup>
3. Conn & Coyne (2014)	USA	Case study.	Behavioural (Graduated exposure, shaping and contingency management, social skills training, stimulus fading).	3-year-old African American male.	Clinician led in a school classroom. 12 half hour sessions delivered over 3 months.	<i>Parent:</i> CBCL <i>Teacher:</i> TRF	At pre-test CBCL and TRF scores suggested all behaviours were below clinical range with some borderline (pervasive development and somatic complaints.) Post intervention both parent and teacher ratings fell and scores were no longer at borderline clinical levels. Narrative evidence describes that the child frequently communicated verbally at the end of the intervention.	11
4. Oerbeck, Stein, Wentzel – Larson, Langsrud & Kristensen (2014)	Norway	Randomised control study	Multimodal- Behavioural / systems (defocused communication, contingency management, shaping, stimulus fading, and psychoeducation for parents and school staff).	24 children with SM aged 3-9 years. Mean age 6.5. 16 females. 9 attended preschool, 15 were school age. All were recruited from CAMHS, were receiving no other treatment and met DSM-IV criteria for SM. 12 in the treatment group, 12 in WLC group.	The therapeutic programme was delivered by local therapists at community health clinics and then in school. It involved 21 half hour sessions over 3 months.	<i>Parent:</i> CGI, SMQ <i>Teacher:</i> SSQ	A significant time by group interaction was found with SSQ and SMQ scores for the intervention, but not WLCs. This suggested significant increases in speech for the intervention group. Analysis of SSQ scores in the treatment group found a significant time by age interaction which suggested greater gains in speech for younger children. The SMQ total score, and school subscale showed significant improvements over time for the intervention group but not on the home and public speaking subscale.	26

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Authors	Country	Study design	Type of intervention	Population and demographics	Delivery	Outcome measures	Results	Quality rating <sup>a</sup>
5. Bergaman, Gonzalez, Picantini & Keller (2013)	USA	Randomised control trial	Behavioural/ systems (Graduated exposure, contingency management, cognitive restructuring, parental education).	21 children with SM aged 4 to 8. Gender not referenced. 12 in intervention 9 in WLC. 9 White, 2 Latino, 4 Asian, 4 Biracial, 2 other. All met the criteria for SM in the DSM-IV.	Sessions were manualised and delivered by a therapist in a clinical setting. 20 1 hour sessions delivered over 24 weeks, or WLC for 12 weeks.	<i>Parent:</i> SMQ, SASC-P <i>Teacher:</i> SSQ, SASC-T, SNAP	Measures were made at end of condition (24 weeks or 12 for WLC). At 24 weeks parents and teachers rated significant improvements in speech for the intervention group but not the WLC group. At 24 weeks parents rated significant improvements in social anxiety for the intervention group, but not the WLC group. Teachers did not report significant improvements in social anxiety for either group. The significance of SMQ, SSQ and SASC-P scores were maintained at 36 week follow up.	25
6. Mitchell & Kratochwill (2013)	USA	Single case experimental design. Randomised multiple baseline.	Behavioural (Stimulus fading, shaping and contingency management).	4 children with SM aged 5 to 10 (mean age of 7). 2 males, 2 females. 3 had a diagnosis of SM from a psychologist, 1 was reported to meet the criteria by a social worker and school counsellor.	Delivered at various times by parent, teacher and clinician. Ran for 6 -7 weeks. Sessions delivered in a clinic and then moved into home and school. During the baseline phase children experienced similar conditions without intervention, e.g. playing a game with a parent and teacher.	<i>Parents:</i> SBF, GAS, CBCL <i>Teachers:</i> SBF, GAS, TRF	Observations of speech significantly increased from baseline to post-intervention, with greater gains in the clinical setting. SBF scores for severity of behaviour fell for all children although parental and teacher reports differed in the extent of this. GAS scores from parents and teachers showed improvements in speaking behaviour for all children. Unanalysed CBCL and TRF scores suggest that anxiety levels did not alter over the course of the treatment. Trends in gains, maintenance and reduction in scores differed between parent and teacher reports for each child.	16

Authors	Country	Study design	Type of intervention	Population and demographics	Delivery	Outcome measures	Results	Quality rating <sup>a</sup>
7. Oerbeck, Johansen, Lundahl & Kristensen (2012)	Norway	Uncontrolled pilot study. Within group pre and post measure.	Multimodal – Behavioural / systems (defocused communication, contingency management, shaping, stimulus fading, and psychoeducation for parents and school staff).	7 children with SM aged 3 – 5 years. Mean age 4 years 4 months. 5 girls. 4 bi/multilingual. All had to meet DSM-IV criteria for SM and have no other active treatments for SM.	Therapist led with a manualised approach. Initially delivered at home then moved into the education setting. Sessions were phased out either when the child began speaking to the class teacher or after 6 months of intervention.	<i>Parent:</i> SMQ, CGI, CBCL <i>Teacher:</i> SSQ, TRF	SMQ and SSQ scores significantly improved before and after intervention, suggesting parents and teachers noticed significant improvements in speech. CBCL and TRF scores did not reach clinical thresholds before or after intervention and showed little change between baseline and 1 year follow up. Raw data suggested a general agreement in teacher / parent ratings, although teachers rated slightly more anxiety at baseline but less withdrawn behaviour.	19
8. Ooi, Raja, Sung, Fung & Koh (2012)	Singapore	Case series study.	Web based CBT.	5 participants aged 6 – 11. Mean age 9.4 females. All Singapore-Chinese. All had a diagnosis of SM according to the DSM-IV criteria. 3 out of 5 were also taking fluoxetine.	Facilitated by a psychiatrist and therapist in a clinical setting. 14-week programme of 8 training sessions, 6 practice sessions.	<i>Parents:</i> SMQ <i>Teachers:</i> Narrative feedback	SMQ scores were not statistically analysed. Parents of 3 in 5 participants rated an overall improvement in speaking. The other 2 reported small decreases in speech. Only 1 parent rated their child to have improved speech on the school subscale. 3 out of 5 showed improvements on the home and public speaking subscale. 3 out of 5 children were reported to be speaking audibly in the presence of their teacher at school. One child was reported to be whispering and another still not communicating verbally post treatment.	11

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Authors	Country	Study design	Type of intervention	Population and demographics	Delivery	Outcome measures	Results	Quality rating <sup>a</sup>
9. Vecchio & Kearney (2009)	USA	Controlled outcome, single participant based alternating treatment design. Randomised treatment order.	Behavioural (Treatment A: graduated exposure, prompting, modelling, shaping. Treatment B: contingency management).	9 children aged 4 to 9, mean age of 6.6. 7 females. 4 European American, 2 biracial, 2 Asian - American and 1 Hispanic.	Treatment A was therapist led in a clinic and school setting. Treatment B was parent led and delivered at home. Duration ranged between 8 and 32 sessions over 2 to 5 months. Treatment continued until either the criteria for positive end-state functioning was met (speaking in school) or after 6 months of treatment.	<i>Parents:</i> Auditability of speech rating, words spoken in public, CBCL. <i>Teachers –</i> Auditability of speech rating, words spoken in public, TRF.	Children displayed significantly greater speech during treatment A than B. A moderate effect size was found for parent reports and a small effect size based on teacher reports. CBCL scores decreased for 7 out of 9 children from pre-treatment to post treatment and remained stable at 3-month follow-up, suggesting a decrease in feelings of anxiety. TRF scores for only 3 children were made pre and post treatment. These decreased and remained stable at 3 month follow up. At post treatment and 3-month follow-up 8 children met the criteria for positive end-state functioning.	18
10 Fisak, . Oliveros & Ehrenreich (2006)	USA	Case study	Behavioural / systems (SET-C: Shaping, social skills, graduated exposure, contingency management, goal setting, parental education)	10-year- Old Hispanic male.	Delivered by a therapist in a clinical setting. 24 sessions held over two school years.	<i>Parent:</i> CBCL, PCS – C <i>Teacher:</i> TRF, PCS-C	Pre-treatment the CBCL and TRF scores showed the internalising problems subscale was in the clinical range. The externalising behaviours subscale was in the non-clinical range. The researchers did not repeat the measures used at baseline post intervention and instead tracked the number of verbalizations made during each session. Verbalisations fluctuated throughout treatment and were lower post-intervention compared to baseline.	9

Authors	Country	Study design	Type of intervention	Population and demographics	Delivery	Outcome measures	Results	Quality rating <sup>a</sup>
11 Suveg, . Comer, Furr & Kendall (2006)	USA	Case study.	CBT (goal setting, contingency management, skills training, cognitive restructuring, graduated exposure, relaxation techniques).	8-year-old female. Caucasian. Met criteria for SM, social anxiety and GAD according to the criteria of the DSM-IV.	Delivered by a therapist in a clinical setting over 20 sessions (originally hoped to be 16).	Parents: STAIC-P, CBCL Teacher: Followed a manualised TRF approach.	The mother rated less externalising and internalising behaviours from baseline to post treatment according to raw CBCL scores. A similar trend was shown in internalising behaviours according to teacher ratings on the TRF. However, no changes in externalising behaviours was reported. The TRF was completed pre and post intervention by different teachers. Both parents completed the STAIC-P pre and post intervention. The mother rated greater levels of anxiety at baseline than the father. Both showed a reduction to a similar rating post treatment. The child was judged by an independent evaluator to no longer meet the requirements for SM or GAD.	10

Note. *ADIS IV (C/P)* Anxiety disorders interview schedule for DSM-IV- child / parent version, *CBCL* Child behaviour checklist, *CBT* Cognitive Behavioural Therapy, *CGAS* Clinical Global Assessment Scale, *CGI- S/I* Clinical Global Impression Severity / Improvement scale, *EVT-2* Expressive Vocabulary Test Second Edition, *GAS* Goal Attainment Scaling, *PCS-C* Perceived Competence Scale for Children *PPVT-4* Peabody Picture Vocabulary test, fourth edition, *RBOCSM* Revised Behavioral Observation Code for Selective Mutism, *SBF* Severity of Behaviour Form taken from the Parent Screening Questionnaire and School Screening Questionnaire, *TNL* Test of Narrative Language, *TRF* Teacher Report Form, *SET-C*, Social Effectiveness Therapy for Children, *SMQ* Selective Mutism Questionnaire, *SNAP* Strong Narrative Assessment Procedure Retell, *SSQ* School Speech Questionnaire, *STAIC-P* State Trait Anxiety Scale for Children – Parent version, *WLC* waitlist control

<sup>a</sup> Total score from study quality checklist (Downs & Black 1998)

## 1.3 Results

Of the 11 reviewed studies the participant characteristics, intervention design, measures and outcomes that teachers and parents reported are described in Table 1. Studies are numbered in chronological order and are referred to hereafter by this number. Outcomes are described in terms of intervention effectiveness and the general pattern of results from teacher and parent ratings. The methodological quality score based on the checklist by Downs and Black (1998) is reported.

A summary of 18 excluded studies which met all other inclusion criteria but did not use a parent and teacher rating of outcome are reported in Appendix E. This provides a context as to which other informant groups make ratings on the effectiveness of intervention for SM.

### 1.3.1 **Question One: What outcomes are teachers and parents asked to report to understand change following an intervention for SM?**

Outcomes measured mainly fell into two categories; speech and communication and the child's affective / emotional state and associated behaviour, e.g. anxiety and internalising or externalising problems.

Of the reviewed studies six reported that both teachers and parents made a rating of speech pre and post intervention (studies 2, 4, 5, 6, 7 and 9). One study only asked parents to rate improvements in speech outcomes (1). Another asked for parental and teacher ratings on the progress of speech, but only narrative descriptions for the teachers were reported (8). Three studies only took measures of affective change from parents and teachers (3, 10, and 11). Within the studies that measured speech outcomes six used a scale of functional speech behaviours for specific contexts, e.g. at school or in public (1, 2, 4, 5, 7 and 8). Two studies measured the audibility and frequency of words spoken (6 and 9). One study asked teachers to rate the participant's narrative language ability (5).

Several studies included in the review were interested in the effect of the intervention on the child's emotional state and subsequent behaviours. There was some variation as to what emotions and behaviours were defined and measured. The term 'affective state' was used by the present review to group such measures for the purpose of comparison. Of the reviewed studies seven included a pre and post intervention rating by a teacher and parent for the child's affective state (1, 3, 5, 6, 7, 9 and 11).

Measures of affective changes included changes in symptoms of social anxiety (5); anxious behaviour (1, 6 and 11); and general emotional and behavioural problems (7, 12, 9, 3 and 10).

Speech was typically the primary outcome with affective and behavioural change being a secondary outcome. Other secondary variables were also measured, such as symptom severity and changes in the clinical significance of the SM behaviours. However, primary and secondary measures were not always rated by both a parent and a teacher. Therefore, in this review outcomes were grouped and discussed according to whether they related to speech or affective state rather than primary and secondary measures.

### **1.3.2 Question Two: What measures are used to assess outcomes?**

#### **1.3.2.1 Measures of speech outcomes.**

Of the 11 studies analysed six (1, 2, 4, 5, 7 and 8) asked parents to measure speech outcomes using the Selective Mutism Questionnaire (SMQ: Bergman, Keller, Wood, Piacentini & McCracken, 2001). The SMQ includes 32 questions scored from 0 to 3 where the parent is asked to rate the child's speaking behaviours. A lower score indicates that the child is more inclined to withhold speech (Bergman et al., 2013). It has three subscales for ratings of speech at home, school and in public, as well as producing a total score. It has been found to have a meaningful factor structure and acceptable internal consistency (Bergman et al., 2002).

Four studies (2, 4, 5 and 7) asked teachers to measure speech outcomes with the School Speech Questionnaire (SSQ: Bergman et al., 2002). The SSQ consists of six items, modified from the SMQ. The items relate to the frequency of speech at school. Four possible responses are scored from 0 (never) to 3 (always). A lower score indicates the child is more inclined to withhold speech. Acceptable internal consistency of this measure has been demonstrated (Bergman et al., 2013).

Further studies asked parents and teachers to record the number of words the child spoke, mouthed or whispered on a daily basis. One study (9) asked parents and teachers to rate the audibility of speech on a scale, where 0= not audible and 10= completely audible. Another study (6) asked parents and teachers to count the number of words spoken by the child in treatment sessions, but only analysed data from independent observers. Furthermore, in this study parents and teachers were asked to rate progress towards the treatment goals of speech in circumstances where they had previously not spoken using a 5 point rating scale on a weekly basis. This approach was referred to as Goal Attainment Scaling (GAS). In order to gain information about the severity of the child's mutism this study also used the Severity of Behavior Form (SBF) which consisted of adapted items from the Parent Screening Questionnaire and School Screening Questionnaire (Gittelman 1985a and 1985b; cited in Carlson, Kratochwill and Johnston, 1994). This tool was originally designed to measure a range of behaviours including anxiety, social anxiety and general mood. In the reviewed study teachers and parents completed items relating

to where and to whom the child would speak (it was not stated in the paper which statements this adapted measure included). The authors cited the use of the abbreviated scale in a previous study (Carlson et al. 1994.) However this cited paper reported that the psychometric properties of the abbreviated version had not been established.

### **1.3.2.2 Measures of affective outcomes.**

In addition to assessing the impact of intervention on speech outcomes, studies also measured emotion and behaviour more generally. Seven studies (1,3,6,7,9,10 and 11) used the Achenbach System of Empirically Based Assessment - Child Behavior Checklist or Teacher Report Form (ASEBA – CBCL / TRF; Achenbach & Rescorla, 2003). This is a norm-referenced checklist for parents and teachers designed to assess the child's psychological and social issues. Both measures asked informants to rate statements relating to the child's behaviour on a 3 point scale (0 = not true, 1 = somewhat true and 2 = often true). Scores from all items can be combined to produce a total score, or combinations can contribute to subscale scores. Eight syndrome subscales measure: 1) aggressive behaviour, 2) anxiety/depression, 3) attention problems, 4) rule breaking behaviour, 5) somatic complaints, 6) social problems, 7) thought problems and 8) withdrawal/depression. Scales 2), 5) and 8) can be combined to form an internalising behaviours subscale and scales 1) and 4) can be combined to produce an externalising behaviours subscale. Scores can be used to gain a T score which can indicate if clinical levels of severity have been reported. All scales have been found to have good internal consistency and interrater reliability (Achenbach & Rescorla, 2003). In the present review one study asked teachers to complete the standard parent-report CBCL rather than the TRF specifically designated for teachers (1).

Because of the comorbid links between SM and social anxiety, further studies have measured children's changes in reported levels of social anxiety using the Social Anxiety Scale for Children - parent and teacher versions (SASC-P/T; LaGreca & Stone, 1993). This is an 18-item questionnaire about social anxiety where a higher score indicates higher symptom severity. The internal consistency of both scales was reported to be good in the reviewed study (5). Further specific anxiety measures included the State-Trait Anxiety Inventory for Children (STAIC; Spielberger, 1973. Cited in Suveg et al. 2006). This consists of two scales, one measuring trait anxiety and the other state or current anxiety, and each with 20 items. The reviewed study reported that it has adequate psychometric properties, good test-retest reliability and internal consistency (11).

One study asked parents and teachers to measure children's level of competence in activities and social contexts using the Perceived Competence Scale for Children (Harter, 1982).

However this was only completed at baseline and there was no data post intervention to compare this to (10).

### **1.3.2.3 Additional parent and teacher rated secondary measures.**

Only two studies asked parents or teachers to make a rating unrelated to speech or affective change (5 and 7). In study 5 teachers were asked to measure children's narrative language ability using the Strong Narrative Assessment Procedure - Retell (SNAP: Strong 1998 ). This involves the child retelling a story heard on audiotape and has been adapted for use with children with SM (McInnes, Fung, Manassis, Fiksenbaum, & Tannock, 2004). Shorter responses on this task are associated with greater severity of selectively mute behaviour (Bergman et al., 2013). In a further study (7), parents were asked to rate the severity of SM behaviours before and after intervention using the Clinical Global Impression Scale (CGI). This measure is used to assess the overall severity and changes of a targetted behaviour pre and post intervention. It is a generic measure of any behaviour and is not specific to SM (Sharkey, Mc Nicholas, Barry, Begley, & Ahern, 2008). It uses a seven point likert scale to describe changes in behaviour from baseline (0) with + / - 1, 2 or 3 awarded to rate the degree and direction of change. It is typically used by clinicians.

Ratings made using the CGI and SNAP were only made by one informant group. Therefore it was not possible to establish informant agreement or discrepancy. The outcomes of these measures are not discussed further as they do not relate to the aims of the review.

## Chapter 1

Table 2

*Overview of assessment measures provided by parents and teachers*

Study	Speech measures		Affect measures		Other measures	
	Parent	Teacher	Parent	Teacher	Parent	Teacher
1. Klein et al . (2016)	SMQ	-	CBCL	CBCL	-	-
2. Oerbeck et al. (2015)	SMQ	SSQ	-	-	-	-
3. Conn and Coyne (2014)	-	-	CBCL	TRF	-	-
4. Oerbeck et al. (2014)	SMQ	SSQ	-	-	-	-
5. Bergman et al. (2013)	SMQ	SSQ	SASC-P	SASC-T	-	SNAP
6. Mitchell and Kratochwill (2013)	GAS, SBF.	GAS, SBF	CBCL	TRF	-	-
7.Oerbeck et al. (2012)	SMQ	SSQ	CBCL	TRF	CGI	-
8. Ooi et al. (2012)	SMQ	Narrative information	-	-	-	-
9. Vecchio and Kearney (2009)	Frequency of words	Frequency of words	CBCL	TRF	-	-
10. Fisak et al. (2006)	-	-	CBCL, PCS-C	PCS - C	-	-
11. Suveg et al. (2006)	-	-	CBCL, STRAIC-P	TRF	-	-

*Note. CBCL Child behaviour checklist, CGI- S/I Clinical Global Impression Severity / Improvement scale, GAS Goal Attainment Scaling, PCS-C Perceived Competence Scale for Children, SBF Severity of Behaviour Form taken from the Parent Screening Questionnaire and School Screening Questionnaire, TRF Teacher Report Form, SMQ Selective Mutism Questionnaire, SNAP Strong Narrative Assessment Procedure Retell, SSQ School Speech Questionnaire, STAIC-P State Trait Anxiety Scale for Children – Parent version*

### 1.3.3 Question Three: What outcomes do parents and teachers report and are there extant similarities and differences?

#### 1.3.3.1 Exploring change in speech outcomes.

Seven studies asked parents and teachers to measure speech-based outcomes (2, 4, 5, 6, 7, 8 and 9). Study 4 received the highest rating of quality, scoring 26 out of 32 points due to its randomised control group design, use of reliable measures and relatively larger sample size ( $N =$

24). In this study, 12 children (aged 3 to 9 years) with SM took part in three months of multimodal behavioural and systems based intervention. 12 children with SM were assigned to a wait list control (WLC) group (mean age for both groups = 6.5 years). The analysis showed that teacher ratings of speech using the SSQ significantly increased for the treatment group ( $p = .004$ ). No significant differences in speech were reported for the WLC group. A significant time by group by age interaction was also found, indicating a more pronounced increase in speech in the treatment group for younger children, where 6.5 was used as the upper limit for the younger age group ( $p = .029$ ).

Maternal scores from the SMQ showed a similar trend with a significant improvement in reported speech for the intervention group ( $p = .006$ ), but not the WLC group. Unlike the teacher rating this was not significantly moderated by the age of the child. The SMQ total scale score and the school subscale score for the intervention group differed significantly between baseline and the end of treatment, but scores on the home and public speaking subscales did not change significantly.

A follow up study one year after intervention ended was published separately (2). It found that teacher rated SSQ scores showed no decline in the rating of speech for children who had taken part in the intervention. In fact small but significant increases in improvement were made in the year between post intervention and follow up ( $p < 0.001$ ). The more pronounced improvement in younger children was also replicated in this group. Mother rated SMQ scores also showed significant improvements in speech over time ( $p < 0.001$ ), but this group effect was not moderated by age. In contrast to the original study all subscales of the SMQ (i.e., speech at school, home and in public) showed significant improvements.

The intervention used in studies 4 and 2 was piloted by study 7. It was rated fourth for methodological quality with 19 points. This rating reflected the relatively high detail used to describe participant characteristics and analysis. The lack of a comparison group meant it did not score as highly as the later RCT. In this pilot study seven children with SM took part in the intervention (mean age = 4 years, 4 months). Teachers and parents were asked to rate improvements in speech with the SSQ and SMQ respectively. Scores were compared from baseline to end of treatment six months later. Data was also gathered for a one year follow up. The results showed a pattern similar to the later studies where teachers rated significant improvements in speech after six months of intervention ( $p < 0.001$ ) with a large effect size ( $\eta^2 = 0.965$ ). The authors claimed that the SMQ scores also showed significant improvements after six months (scores were represented graphically, but not reported). The subscale results showed a significant increase in public speaking between baseline and end of treatment ( $p = 0.001$ ) with a large effect size ( $\eta^2 = 0.97$ ), but a non-significant improvement in parent reported speech at home. Mean SSQ scores from teachers remained significantly different from baseline at one year

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follow up ( $p = 0.007$ ) with a large effect size ( $\eta^2 = 0.72$ ). No significant changes were found between the teachers' SSQ scores from the end of the intervention and the one year follow up, suggesting that gains were maintained rather than continuing to improve.

Study 5 scored relatively highly with a total of 25 points. This reflected the use of a control group, reliable and valid measures and relatively large sample size ( $N = 21$ ). Twelve children diagnosed with SM took part in a multimodal behavioural and systems intervention for 24 weeks and 9 children diagnosed with SM were assigned to a WLC group who took part in the intervention for 12 weeks (age range 4 to 8 years). Teachers were asked to rate improvements in speech using the SSQ and parents were asked to do the same using the SMQ. Scores were taken at baseline, 12 weeks, 24 weeks and at 36 week follow up. Analysis conducted at week 12 demonstrated that SMQ scores and SSQ scores showed significant improvements for the intervention group, but not the WLC group, suggesting that the intervention was already having a positive impact at the half way stage.

A comparison of SMQ scores from baseline to the end of the intervention condition showed a significant group by time interaction ( $p < .001$ ,  $\eta^2_{\text{partial}} = .50$ ) There was a significant increase in parental SMQ scores for the 24 week intervention group between baseline and the end of the intervention ( $p < .001$ ) with a large effect size ( $\eta^2_{\text{partial}} = .74$ ). No significant changes were found between baseline and the end of intervention for the 12 week WLC control group. Similarly a significant group by time interaction was found for teacher ratings using the SSQ between baseline and the end of the intervention condition ( $p < .001$ ,  $\eta^2_{\text{partial}} = .50$ ). Significant improvements occurred for the 24 week intervention group ( $p = .002$ ), with a large effect size ( $\eta^2_{\text{partial}} = .62$ ), but not for the 12 week WLC. Follow up scores at 36 weeks for those involved in the 24 week intervention condition showed that SMQ scores were significantly improved compared to baseline ( $p < .001$ ) but were not significantly different from week 24 ( $p = .18$ ) A similar trend was reported in SSQ scores ( $p = .01$  and  $.94$  respectively), indicating that both teacher and parent rated improvements in speech post intervention were maintained 3 months later.

The quality rating of other studies that used a parent and teacher rating of speech outcomes were comparatively lower due to weak methodological quality and lack of clarity in the analysis. The results were therefore reviewed with greater caution. Two studies did not use an existing reliable / valid measure to rate changes in speech (6 and 9). Study 6 was a case study series of four children with SM (mean age 7 years). Children took part in a behavioural intervention with multiple baselines. Parents and teachers rated the severity of the child's withholding of speech using the SBF and a GAS rating. No statistical analyses of these measures was reported but graphical representations showed fluctuation in parent and teacher SBF scores for each child throughout the course of intervention. Despite this the authors concluded that both parents and teachers rated improvements from baseline to the end of the intervention condition.

In study 9 nine children (mean age 6.6 years) were placed in an alternating treatment condition. Treatment A consisted of graduated exposure, prompting, modelling and shaping techniques. Treatment B consisted of contingency management. Parents and teachers were asked to measure the number of words they heard the child speak in public and to rate on a scale from one to ten how audible this speech was. The results showed that both parents and teachers rated that the children displayed significantly greater speech during treatment A than treatment B ( $p < .01$  and  $p < .05$  respectively) with a moderate effect size for parents and a small effect size from teachers ( $d = 0.41$  and  $d = 0.25$  respectively).

### **1.3.3.2 Exploring change in affective outcomes.**

Of the eight studies which made a measure of affective change only two used a statistical analysis to see if the changes from baseline to post-treatment were significant (1 and 5). They scored highly for study quality when assessed with the Downs and Black (1998) checklist due to their group design and relatively larger sample size (study 1 ranked 3<sup>rd</sup> and study 5 ranked 2<sup>nd</sup>.)

Study 5 used the SASC-P and SASC-T to assess parent and teacher perceptions of changes in social anxiety pre and post-treatment. A significant group by time interaction was found for SASC-P results between baseline and the end of intervention at 24 weeks ( $p = .01$ ,  $\eta^2_{\text{partial}} = .28$ ). Follow-up analysis showed that social anxiety symptoms for the 24 week intervention group decreased significantly from baseline to the end of the intervention ( $p = .009$ ) with a large effect size ( $\eta^2_{\text{partial}} = .48$ ). The changes in scores for the 12 week WLC group were non-significant. Conversely, the change in scores from pre to post-intervention from the teacher rated SASC-T for both the intervention and the WLC group was non-significant. This analysis suggests that teachers did not report a significant reduction in social anxiety following the intervention period. The same pattern in results was found at follow up, 12 weeks after the intervention period concluded.

Study 1 reported a similar informant discrepancy where parents and teachers were asked to use the CBCL to measure changes in symptoms of anxiety and withdrawn behaviour. In this study 33 children diagnosed with SM (mean age = 6.7 years) took part in the Social Communication Anxiety Treatment programme (see Table 1 for details). Parents reported that withdrawn / anxious CBCL subscale scores significantly reduced between baseline and the end of the intervention after 9 weeks ( $p = .19$ ) with a medium effect size ( $d = .45$ ). Teacher ratings using the CBCL showed no significant changes for symptoms of anxiety or withdrawn behaviour between baseline and the end of intervention period.

A further six studies measured affective outcomes using the CBCL / TRF but did not analyse the significance of the results (3, 6, 7, 9, 10 and 11). They received comparatively lower scores on the study quality checklist. Therefore, less emphasis was placed on their findings (respective scores: 11, 16, 19, 9 and 10). Methodological issues which contributed to these low

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scores included a comparison of mean CBCL / TRF scores taken from aggregate scores of uneven groups of teachers and parents (9); only gathering information from parents and teachers at baseline and not having data to compare this to after intervention (10); and the teacher informant changing between baseline and post intervention scoring (11).

Although statistical analysis was not reported the studies did indicate whether CBCL / TRF total scores or subscale scores reached a level deemed clinically significant. By comparing whether teachers and parents rated the same scales as clinically significant or not it was possible to gain an overall picture as to whether the two groups' ratings were similar or different. This information is summarised in Table 3.

Table 3

*Studies without statistical analysis of affective outcomes: Comparison of the clinical significance in ratings made by parents using the CBCL and CBCL subscales, and teachers using the TRF and TRF subscales*

Study details	Parent rated CBCL score and subscale scores				Teacher rated TRF score and subscale scores				Comparison of parent and teacher rating
	Baseline: Total score in clinically significant range?	Post-treatment: Total score in clinically significant range?	Baseline: Subscales in in a clinically significant range?	Post-treatment: Subscales in in a clinically significant range?	Baseline: Total score in clinically significant range?	Post-treatment: Total score in clinically significant range?	Baseline: Subscales in in a clinically significant range?	Post-treatment: Subscales in in a clinically significant range?	
Study 3: Single case study	Non-clinical	Non-clinical	None	None	Non-clinical	Non-clinical	Somatic complaints: Borderline clinical range	Somatic complaints: Borderline clinical range	The teacher rated elevated scores for somatic complaints pre and post intervention. The parent did not make any clinically significant ratings.
Study 6: Case series of 4 children (not reported)	(not reported)	Anxiety/depression scale: Non-clinical for 4 / 4 children	Anxiety/depression scale: Non-clinical for 4 / 4 children	(not reported)	(not reported)	Anxiety/depression scale: Non-clinical for 3 / 4 children. Clinical range for 1 / 4 children	Anxiety/depression scale: Non-clinical for 3 / 4 children. Clinical range for 1 / 4 children	Parents of 4 children and teachers of 3 out of 4 felt the child's anxiety / depression did not reach a clinically significant level. One teacher felt that anxiety was clinically significant at baseline and post intervention.	

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Study details	Parent rated CBCL score and subscale scores				Teacher rated TRF score and subscale scores				Comparison of parent and teacher rating
Study 7: Pilot study, within group design with 7 children	Non-clinical	Non-clinical	Anxiety/ depression scale and withdrawn behaviours scale elevated but not significant.	Anxiety/ depression syndrome scale and withdrawn behaviours scale not elevated.	Non-clinical	Non-clinical	Anxiety/ depression scale and withdrawn behaviours scale elevated but not significant.	Anxiety/ depression scale and withdrawn behaviours scale not elevated.	Teacher and parents both rated anxiety / depression and withdrawn behaviour to be elevated at baseline and to reduce post intervention.
Study 9: Alternating treatment design with 9 children.	Non-clinical <sup>a</sup>	Non-clinical	Internalising problems scale mean was clinically significant.	Internalising problems scale mean decreased to borderline clinical significance. <sup>a</sup>	Non-clinical <sup>b</sup>	Non-clinical	Internalising problems scale mean was clinically significant.	Internalising problems scale mean was clinically significant. <sup>b</sup>	Parents and teacher rated internalising problems scale mean scores were clinically significant at baseline. Parent ratings of this reduced to a borderline clinical range post intervention. Teachers rated no change in clinical significance.
Study 10: Single case study.	Non-clinical	(not reported)	Withdrawn/depressed scale and internalising behaviour scale in the clinical range.	(not reported)	Non-clinical	(not reported)	Withdrawn/depressed scale and internalising behaviour scale in the clinical range.	(not reported)	The parent and teacher rating showed the withdrawn /depressed scale and the internalising behaviour scale were in the clinical range at baseline. No data was gathered post intervention.
Study 11: Single case study.	Non-clinical	Non-clinical	Internalising behaviour scale in the borderline	Internalising behaviour scale in the non-clinical	Non-clinical <sup>c</sup>	Non-clinical	Internalising behaviours scale in the clinical range.	Internalising behaviour scale in the clinical range. <sup>c</sup>	Teacher and parent reported elevated scores for internalising behaviour at

Study details	<u>Parent rated CBCL score and subscale scores</u>	<u>Teacher rated TRF score and subscale scores</u>	Comparison of parent and teacher rating
	clinical range. range.		baseline (the teacher rating reached clinical significance). Post intervention the parent ratings showed a reduction in internalising behaviour scores. Teacher scores remained in the clinically, but the teacher informant changed.

*Note. CBCL Child Behaviour Checklist, TRF Teacher Report Form*

<sup>a</sup> Based on data for 7 out of 9 children

<sup>b</sup> Based on data for 3 out of 9 children

<sup>c</sup> The teacher who completed the TRF post-intervention was different from the teacher who completed it at baseline

## 1.4 Discussion

The present review explored similarities and discrepancies between teacher and parent reported outcome measures for psychosocial interventions for SM. This comparison is an unexplored factor that may potentially impact the perceived effectiveness of an intervention. Eleven psychosocial intervention studies that used a parental and teacher outcome rating that could be statistically or visually represented were identified, assessed for methodological quality and reviewed for patterns in informant discrepancy. The studies varied in quality according to a set of criteria for randomised and non-randomised designs (Downs & Black, 1998). Older single-case studies scored relatively low, in comparison to more recent RCTs. Within this range of study quality parents and teachers were jointly asked to rate outcomes relating to speech and / or a child's affective state. Patterns in informant discrepancy varied between these two measures, with speech outcomes showing greater informant correspondence (there was a statistically significant improvement for both parents and teachers when analysed separately), but not for the broader impact of the intervention on affective outcomes (there was an inconsistent result in statistical comparisons between pre and post-intervention for parents versus teachers).

### 1.4.1 Degree of Informant Correspondence for Speech Based Outcomes

Six studies where parents and teachers rated children's frequency of speech reported consistent improvements post intervention. Two studies reported large effect sizes for independent analyses reflecting parent and teacher ratings of speech. One study compared two treatment approaches and found that both parents and teachers rated significant improvements in the frequency of speech at the end of the intervention period, but the effect size for teachers was smaller than parents. Unfortunately not all the studies reported effect sizes or the basic statistical information necessary to calculate these (i.e., means and standard deviations for each group and at each time point). A lack of effect sizes within the literature was highlighted in a meta-analysis of studies which described an intervention for SM by Pionek-Stone et al. (2002). They were able to calculate an effect size for only 20 out of a possible 114 intervention studies.

In their recent review of intervention studies Zakszeski and DuPaul (2017) commented on the difficulty of pooling results and drawing generalisable conclusions when a variety of instruments are used to measure speaking, each with its own operational definition and recording method. In the present review six studies used the SMQ and the SSQ as a rating scale. This meant it was possible to directly compare informant ratings where this measure was used. Unfortunately there were no examples of a between group analysis to see if these ratings were significantly

similar or different which would help to generalise the finding that the SMQ and SSQ increases informant correspondence.

#### **1.4.2 Disparity in Parent and Teacher Ratings of the Impact of Age on Speech Based Outcomes**

One study identified that the teacher rated SSQ showed a greater increase in speech in the treatment group for younger children. A follow up study one year later reported the same trend in teacher ratings of improved speech for younger children. A significant interaction for age was not reported for the mother rated SMQ scores at any time in either study. Despite this informant discrepancy, the authors interpreted the findings to mean that early intervention for SM is more effective. The same conclusions were drawn from a meta-analysis by Pionek-Stone et al. (2002). They found that interventions were more effective when they were delivered close to the age of onset for SM. The present review highlights that this age effect was more pronounced amongst teacher (versus parent) ratings.

#### **1.4.3 Parental Views of Improvements in Speech Across Contexts**

The parent rated SMQ produces a total score and three subscale scores, rating speech at home, school and in other public settings. The teacher adaptation, the SSQ only rates the child's speech at school. In Oerbeck et al. (2012) parents reported significant improvements in children's use of speech for the school subscale, but not the public speaking subscale. Oerbeck et al. (2014) reported that parents rated significant improvements in the child's use of speech on the school subscale but not the public speaking or home subscales. These results indicate that parents perceived the intervention improved speech at school, but not at home. This discrepancy could suggest that the impact of the intervention did not generalise outside of the school setting. Alternatively, improvements in speech behaviours may take time to generalise from school to other situations, as all SMQ subscales were rated by parents to show significant increases in speech by one year follow up (Oerbeck et al., 2015).

#### **1.4.4 Measuring and Comparing Affective Outcomes**

Eight studies in this review looked for the broader impact of the intervention on emotional responses and behaviour, collectively referred to as affective outcomes. Five were published before the inclusion of SM as an anxiety disorder in the DSM-5 (APA, 2013). However, the evidence base which resulted in this change had been growing for a number of years prior to this (Kristensen, 2000; Vecchio & Kearney, 2005). A particularly strong link between the characteristics

of SM and SAD emerged from this evidence base, suggesting that the two conditions produced similar behaviours in children (Muris & Ollendick, 2015). Despite this degree of comorbidity, only Bergman et al. (2013) chose to specifically measure social anxiety. The other studies used a broader description of emotional and behavioural changes which included psychological problems and emotional problems. For the purpose of this review these measures were grouped and referred to as measures of affective state. However, there were variations as to what this incurred and how this was defined. This made it challenging to make a comparison and to draw generalisable conclusions about informant ratings, echoing the recent conclusion by Zakszeski and DuPaul (2017).

#### **1.4.5 Informant Discrepancies in Ratings of Affective Changes**

The findings of Bergman et al. (2013) and Klein et al. (2016) pointed towards an interesting trend in informant discrepancy for affective changes. In both studies teachers and parents rated that speech significantly improved after intervention. In Bergman et al. (2013) parents rated a significant decline in the child's social anxiety post intervention. In Klein et al. (2016) parents reported a significant decline in anxiety and withdrawn behaviour. However, in both studies the teacher ratings indicated no significant change for these affective measures between baseline and post-intervention. This suggested that the teachers in these separate studies felt the intervention for SM did not reduce the child's level of anxiety.

Bergman et al. (2013) suggested that the unexpected discrepancies in their findings could be due to the measure, reflecting that the SASC- T's sensitivity to treatment effects were not fully examined. Klein et al. (2016) suggested that the teachers were more exposed to the children in the most challenging setting and therefore were able to make more informed ratings. It has been suggested that informants exhibit greater correspondence when children are observed in the same context (Achenbach et al., 1987; De Los Reyes & Kazdin 2005). Teachers make first hand observations of pupil behaviour in the school setting, the context where SM is most often experienced. Parent ratings are based on limited exposure to this setting or on second hand accounts from staff and children. However, it is unclear why Klein et al. chose to use the parent intended CBCL with teachers rather than the designated TRF. The suitability of this measure to this group may be a causal factor in this discrepancy.

#### **1.4.6 The Clinical Significance of Scores from the CBCL / TRF to Gauge Informant Agreement**

Six studies reported scores from the parent rated CBCL and the teacher rated TRF, but did not conduct a statistical analysis to see if scores significantly changed, therefore comparisons

were made by comparing the clinical significance of informant ratings pre and post intervention. In all six studies some individual subscales were elevated or reached clinical significance. These related to behaviours that have been linked to SM such as anxiety (Muris & Ollendick, 2015). All six studies reported a total score which pooled subscale scores. All total scores were clinically non-significant at baseline and post-intervention. If conclusions had been drawn solely from the total CBCL / TRF scores then elevated scores in specific subscales would have been overlooked. Therefore future research which uses the CBCL / TRF should use subscales as these are more sensitive to changes between baseline and post-treatment. Furthermore, subscales should reflect behaviours that have been evidentially linked to SM (e.g. the anxious / withdrawn subscale).

Regarding informant discrepancies there were instances where teacher and parent ratings of the clinical significance of scales post-intervention were different. However, this reflected a discrepancy in the parent and teacher's perception of the severity of the child's difficulties which was often present at baseline. It did not show if their ratings changed in light of intervention. A significant change could have taken place even if scores were not in a clinical range. A statistical comparison of scores between baseline and post-intervention was needed to show if a significant change in rating was made by teachers and parents.

#### **1.4.7 Methodological Limitations of the Literature Base**

The weak methodology of many of the studies limited the scope for this review to draw clear conclusions. In addition to the lack of statistical analysis there were other methodological shortcomings such as switching teacher raters mid intervention. Following a review of SM intervention modality Cohan et al. (2006) concluded that the methodological rigour of studies in this area of research is weak. Eleven years later the present review found that, despite the emergence of more rigorous RCTs for other anxiety disorders in childhood and adolescence (see review by James et al., 2015), the lack of methodological rigour in the extant literature continues to be a barrier to understand the impact of interventions for SM.

#### **1.4.8 Summary and Implications**

Selective mutism is associated with a range of academic and social difficulties (Manassis et al., 2007; Remschmidt et al. 2001). It has been suggested that intervention for SM limits these negative outcomes and is more effective than no treatment (Pionek-Stone et al. 2002). The present review aimed to determine what similarities and differences there are in teacher and parent ratings of outcomes of psychosocial interventions for SM. It highlighted that there are good levels of teacher and parent agreement for the improvement of speech based outcomes. This correspondence is easier to compare when the same measures are used, as demonstrated by

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the use of the SMQ and SSQ in several studies in this review. This degree of consistency when considering parent and teacher ratings of the effect of broader behaviour and emotional responses reduces, with parents reporting positive change in levels of anxiety post intervention whilst teachers do not. Alternatively, differences could potentially reflect the lack of methodological rigour and associated analysis of these variables compared to speech based outcomes. This finding does, however, have significant implications as to how school based SM interventions are designed and monitored.

Discrepancies in informant ratings occur when informants observe a child in separate contexts where the child's behaviour can differ (Achenbach et al. 1987). This indicates that teachers are best placed to monitor the progress of school based interventions for SM as they have greater proximity to the context where the child displays the targeted behaviour. In addition, the findings of Bergman et al. (2013) and Klein et al. (2016) regarding the lack of positive change in anxiety compared to speech shown in teacher ratings suggests that school based interventions should target and monitor the child's affective state as well as speech. The link between SM and anxiety is well-established (Black, 1996; Vecchio & Kearney, 2005). However, this review highlighted that teachers can identify increases in a child's speech without corresponding improvements in anxiety. If speech is the only targeted outcome of interventions monitored by teachers it is possible that children will be perceived to be improving, but remain anxious.

### **1.4.9 Limitations and Directions for Future Research**

The present review emphasised the results of studies deemed to be more methodologically robust. This was facilitated with a quality checklist by Downs and Black (1998). The checklist often assigned points in reference to 'main outcomes', which for the majority of studies in this review was speech. Therefore studies which had rigorous methodology for speech outcomes scored relatively highly, even when outcomes relating to affect were not as robust. Future analysis should rate speech and affective outcomes separately to avoid confounded ratings.

In order to review the six studies which used broad behavioural measures to assess changes in the child's affective state without a statistical analysis of change, the clinical significance of scores was compared. This allowed the researcher to gain an overview of the findings of these studies but it did not provide comparable information about the informant's perception of change in light of the intervention. Future reviews should endeavour to calculate means and standard deviations of scores from all informant groups, pre and post intervention, and conduct between group analyses to compare changes.

Despite the promising emergence of RCTs a high volume of studies with no statistical analysis of outcomes continues to dominate the extant literature. A larger body of studies relating to SM intervention with sound methodology is needed, and academic publications need to be rigorous with this as an expectation. Future studies should be clear in their operational definition of measured outcomes so that different intervention studies can be compared. Furthermore, future studies can reduce informant discrepancy by using consistent, related measures such as the SSQ and SMQ. This review has looked at informant discrepancies between teachers and parents but other informant groups are used to rate the success of interventions for SM (e.g. clinicians). Further exploration of informant similarities and differences between these groups is desired.

Finally, the present review suggests that teachers should be more involved in SM interventions. Their relationship with the child will be key as therapeutic outcomes are highly correlated to the quality of the relationship between the facilitator and the participant (Lambert & Barley, 2001). However, to date there has been no systematic exploration of teachers' perceptions of children with SM or how this might influence the way that they work with them (Cleave 2009, Martinez et al., 2009). It has been suggested that teachers' attitudes to children with emotional and behavioural problems are more negative than attitudes to children with intellectual difficulties (Hastings & Oakford, 2003). Furthermore, teachers' explicit and implicit negative attitudes towards pupils influences their behaviour and judgements (Glock & Kovacs, 2013). Therefore the quality of support that pupils with SM receive may be influenced by the teacher's beliefs about the condition. Empirical exploration of this issue is needed.



# Chapter 2: A Grounded Theory Study of Primary Teachers' Experiences of Teaching Pupils with Selective Mutism

## 2.1 Introduction

Selective mutism (SM) is defined as an impairment of early childhood where a child with no physical impediment to speech will consistently not talk in specific social situations where a vocal response is expected, but will talk in other contexts (APA, 2013). Withholding of speech is most likely to occur at school, with the age of onset usually being before five years of age (Bergman et al., 2013). Information gathered by researchers indicates approximately less than 1% of the population are selectively mute (Mayworm, Dowdy, Knights, & Rebelez, 2015).

Different etiological ideas as to the basis of SM have been proposed. This includes a genetic disposition, the influence of ecological systems, reinforced behaviour and a response to an early childhood trauma (Viana et al. 2009). Because there is mixed evidence from a range of different etiological theories it has been suggested that a multidimensional model of explanation for SM, drawing on the aforementioned theories as suited to the individual situation, is most useful (Steinhausen, Wachter, Laimböck, & Metzke, 2006).

### 2.1.1 History of Classification

SM is often defined by researchers using a criteria set out in the Diagnostic Statistical Manual of Mental Disorders (DSM: APA, 2013). The classification and definition of SM has undergone several changes over the years. SM was formerly referred to as 'elective' mutism, a term first introduced in 1934 (Steinhausen et al., 2006). It has been suggested that the term elective indicated that the child deliberately chose not to speak (Sharp, Sherman, & Gross, 2007). In 1994 the term was changed from elective to 'selective' in the publication of the DSM-IV (APA, 1994). This term was intended to be more neutral about the underlying reasons for the mutism. (Muris & Ollendick, 2015). At this time SM was listed in the DSM as a sub-category of 'Other Disorders of Infancy, Childhood, and Adolescence'. However, a growing body of evidence established a link between the characteristics of SM and anxiety disorders and it was suggested that SM should be viewed as a form of anxiety disorder (Carbone et al., 2010; Kristensen, 2000). This link was reflected in the publication of the DSM-5 where SM was reclassified under 'Anxiety Disorders' (APA, 2013).

Despite this change in classification it has been suggested that a subset of children with SM present with controlling, defiant and aggressive behaviour (Steinhausen & Juzi, 1996). Elevated comorbidity between SM and defiance disorders have been found in samples of children with SM compared to the general population (Manassis et al., 2007). However, many of the 'acting-out' behaviours associated with oppositional defiance, such as stubbornness, could just as likely be a reaction to facing a fearful situation (Viana et al., 2009).

### **2.1.2 Impact and Intervention**

SM is associated with impairment to academic outcomes including a delay in the development of phonic, literacy and language skills (Manassis et al., 2007, Nowakowski et al. 2009). Speaking inhibition at school limits opportunities for children to solidify their understanding through discussion and they are less likely to ask teachers clarifying questions (Nowakowski et al., 2009). SM is also associated with impaired social functioning. Parents and teachers of children with SM rate them to be less confident than peers in social interactions and to have difficulties maintaining friendships and participating in groups (Cunningham, McHolm, Boyle & Patell, 2004).

SM is thought to become less severe over time. Steinhausen et al. (2006) found that in a sample of 33 adults who were diagnosed with SM in childhood, 57% rated that their symptoms of SM had 'totally improved' and 43% rated some form of improvement. However, this was a follow up to an earlier study which stated that the participants had previously received treatment (Steinhausen & Juzi, 1996). It is therefore difficult to ascertain if SM would have spontaneously abated without intervention. There are a number of studies which describe the incidence of SM in adolescence (Bunnell & Beidel, 2013; Christon et al., 2012; Lang et al., 2016). This indicates that SM does not decline with age for all individuals. Furthermore, Steinhausen et al. (2006) found that the adults who had SM in childhood were more likely to experience phobic behaviours and other psychiatric conditions (e.g. depression) compared to a matched control group with no childhood psychiatric diagnoses. This finding indicates that speech in social contexts may improve for children with SM over time, but difficulties may manifest in different ways later in life. Therefore early intervention is needed to prevent worsening outcomes in adulthood.

There are a variety of approaches to intervention for SM which reflect different etiological theories (review by Viana et al. 2009) but the intended outcome is usually for the child to speak in the context where speech is presently withheld (Muris & Ollendick, 2015.) Recent randomised control trials (RCTs) have found that levels of functional speaking (e.g. number of audible vocalisations in target situations) are rated to be significantly more improved for children with SM who take part in intervention compared to matched wait list control groups (Bergman et al., 2013,

Oerbeck et al., 2014). Despite numerous reviews it is unclear if a specific treatment modality is most effective as there is an insufficient quantity of methodologically sound studies to compare different approaches (Cohan et al., 2006).

### **2.1.3 Supporting Pupils with SM at School**

Intervention for SM is increasingly being delivered in the school setting. In a recent review of 21 psychosocial intervention studies for SM Zakszeski and DuPaul (2017) found that delivery took place in school for a majority of studies ( $n = 12$ ). This is a logical context as it is where the behaviour is most apparent and it is less disruptive to the child's routine (Imich, 1998). School staff often played a role, either by consulting with the experimenter or by assisting with the transfer of skills from the therapeutic context. School staff will increasingly be expected to implement and deliver intervention in school given the reduction in specialist services for child and adolescent mental health in the UK (Sharpe et al., 2016).

Preventative steps can limit the severity of SM and reduce the need for costly and time intensive interventions (Busse & Downey, 2011). Prevention strategies involve teachers having a greater awareness of the condition, reducing anxiety at the onset of school and training staff in communication strategies that maintain expectations for speech (Busse & Downey, 2011). Teachers can inadvertently reinforce SM behaviour by responding to non-verbal cues (Cleave, 2009). In some instances peers may talk on behalf of the pupil which reinforces that speech can be avoided (Kern, Starosta, Bambara, Cook, & Gresham, 2007).

It has been suggested that teachers should play a greater role in the assessment process for SM (Dow, Sonies, Scheib, & Moss & Leonard, 1996). Teachers are often first to notice the behaviour and their involvement can lead to earlier identification and access to support (Martinez et al., 2015).

### **2.1.4 Teachers' Perceptions of Pupils with SM**

Martinez et al. (2015) advocated that "teachers' beliefs about SM (e.g., a child being shy vs. being oppositional) may impact the way they interact with students, thus potentially impacting effective interventions being implemented" (p. 86). Despite their increasing involvement in supporting pupils with SM little is known about teachers' perceptions of this group (Cleave, 2009).

Authors have anecdotally stated that teachers experience a range of emotions in connection to working with pupils with SM, such as anger, frustration and helplessness (Cline & Baldwin, 1994). It has been suggested that teachers find the lack of verbal communication frustrating, view the behaviour as manipulative and express this as anger towards the child (Imich, 1998). These claims are based on author experience (see Imich, 1998) or on older citations (see

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Cleave, 2009) rather than direct empirical research. Some case studies describe that a teacher felt frustration toward a pupil (Moldan, 2005; Rye & Ullman, 1999). However these are interpretations of the teacher's feelings by the primary author who acted as the facilitating therapist and are not expressly voiced by the teacher.

There has been some exploration of teachers' perceptions of SM using qualitative methodology which allowed teachers to express their views in their own words. Omdal (2008) conducted a series of semi-structured interviews with nine parents and nine educators (six teachers and three support assistants) of five children who had a diagnosis of SM in Norway. The intention was to explore the inclusivity of teaching practice for children with SM. The resulting thematic analysis revealed that the educators felt they did not receive enough support from specialist services and that some teachers expressed frustration regarding the child's lack of progress (Omdal, 2008).

Omdal's (2008) research provided valuable insights about the experiences of those who work with pupils with SM, but it was based on a small sample of Norwegian educators. The semi-structured interview topics described in the paper suggest that teachers were asked to talk about the child and not their own experiences. Therefore, there is scope to gather richer data on this topic. Furthermore, the sample comprised of teachers and support assistants. It is known that teachers and support staff have different interactions and relationships with pupils (Rubie-Davies, Blatchford, Webster, Koutsoubou, & Bassett, 2010). Therefore, the analysis did not capture the distinct experience of teachers. Information was also gathered from parents as well as school staff. The data from both groups were analysed together. It was established in the literature review of the present study that informant discrepancies occur between parent and teacher ratings of SM behaviour due to the differing context in which they interact with the child. Including teacher and parent views in an analysis therefore combines experiences which are likely to be disparate.

Omdal (2008) is to date the only published study to capture teachers' perceptions of children with SM through a systematic process. However, insights can also be gathered from research involving related groups of children. Behavioural inhibition and shyness in children with SM is frequently reported by parents (Steinhausen & Juzi, 1996). Korem (2016) conducted semi-structured interviews with 15 educators (teachers, administrators and trainers) who worked in elementary, middle and high schools in Israel. Participants were asked about their experiences of supporting pupils they perceived to be shy. Thematic analysis highlighted that educators either viewed pupils positively, with the suggestion that they were polite and helpful; or as a concern, where they were perceived to be absent from social interactions. These attitudes influenced whether participants felt the pupil required support. Those who viewed shyness as a positive quality felt this was not necessary as it was a part of their unique character. Those who viewed it

as a concern felt the pupil would benefit from support to become more socially active (Korem, 2016).

Korem (2016) highlighted how educators' views influenced the level of support they put in place for inhibited children. However, some caution is needed regarding the generalisability of findings to educators' experiences of SM. Shy pupils and pupils with SM share some behavioural characteristics but a significant difference is the absence of speech in the school settings for pupils with SM. This key aspect is likely to create a different experience from working with a pupil who is shy but will communicate verbally. Furthermore, the findings are once again based on a diverse sample of job roles within an education system outside of the UK.

### **2.1.5 A Qualitative Approach**

Statements about teachers' views on pupils with SM have been made in the extant literature but they are often unsubstantiated claims based on anecdotal experience. A more systematic exploration of this is needed as the perceptions of teachers may influence the way they support pupils with SM (Martinez et al., 2015). The present study aimed to address this gap in the literature.

Qualitative methods have been utilised to gather some information related to this phenomena but this has not been specific to UK teachers' views on SM. Qualitative methods are advantageous in this area as they allow teachers to describe their experiences and views in their own way, capturing the aspects they find most meaningful. Furthermore, these methods provide the opportunity to gather information inductively and directly from teachers' lived experience. This means that exploration of the phenomenon is open to go in any direction, as guided by those who have lived it. A broad understanding can therefore be built up (Willig, 2013). This approach was suited to an exploration of teachers' experiences of working with pupils with SM as little was known about this phenomenon and there were no constructs with a robust theoretical or research basis to guide a deductive analysis.

The present study used qualitative grounded theory methods to find out about teachers' experiences of working with a pupil with SM. It was felt that an analysis which represented how key aspects of the experience formed and related to each other would provide an insight that educators could apply to their practice. Furthermore, an explanatory framework to represent this phenomenon would provide researchers with a theoretical rationale upon which to base future research. The information generated would provide direction as to where further exploration should focus (Willig, 2013).

Grounded theory is a qualitative methodological approach where a theory representing a phenomenon is generated systematically through the iterative collection and analysis of data. This

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process means that the resulting theory is 'grounded' in the data and evolves through ongoing comparisons between new and existing information (Strauss & Corbin, 1994). Grounded theory methods were chosen as they allowed the researcher to systematically collect teachers' experiences of working with pupils with SM but also showed how key aspects related to each other, thus providing an explanation as well as a representation of views.

### 2.1.6 Research Aims

The present study aimed to create a theory that represented teachers' experiences of working with pupils with SM. The intention was to identify the key aspects that make up this experience and the interactive dynamics between them. The theory was expected to serve as a basis for future exploration of the relationship between teachers and pupils with SM. Due to the reduction of specialist support services in the UK, (Sharpe et al., 2016) teachers will be expected to be more directly involved in supporting pupils with SM in schools. Therefore, the theory would provide insight into teachers' perceptions of the phenomenon which can be used to improve the experiences of pupils and the effectiveness of school based intervention.

Research questions in grounded theory are flexible and initially serve to identify the phenomenon of study. They become more focused as research progresses (Willig, 2013). The original research question asked: How do teachers conceptualise pupils with SM? However, as the study developed, conceptualisation of SM emerged as a smaller category within a broader scope of experience. The question therefore altered to: What are the key factors in primary school teachers' experiences of teaching a pupil with SM and how do these relate to each other?

## 2.2 Method

### 2.2.1 Design and Epistemology

The research was underpinned by a pragmatist stance where the ultimate aim of research is to create a positive change in the world. Pragmatism acknowledges that epistemological differences can lead to different forms of scientific enquiry, but these do not have to be disparate and can be used cooperatively in pursuit of positive change (Bishop, 2015). The researcher wished to produce knowledge which could offer valuable insight into teachers' experiences of working with pupils with SM so this could result in positive changes to the way they support pupils. The researcher chose methods that were suited to these aims.

Grounded theory methods involve data collection and simultaneous analysis. Data is coded in the pursuit of identifying categories to represent the phenomena of interest and these are integrated together into a representational theory (Willig, 2013). There are different versions of

grounded theory which reflect different epistemological positions. Early versions referred to a process of 'discovery' where the researcher uncovered the truth behind the phenomenon. For some researchers this was felt to reflect a positivist epistemology that down played the creative role of the researcher (Willig, 2013). Charmaz introduced the idea of a social constructionist approach to grounded theory which suggested that categories do not emerge from the data but are constructed by the researcher (Charmaz, 2006). In this version the researcher identifies meaning in the data and produces their representation of it, rather than discovering inherent meaning within it. A social constructionist approach to grounded theory was consistent with the researcher's belief that she would construct the theory, with her experiences and culture influencing the analysis and interpretation of the data (Charmaz, 2006). However, the researcher's position was weak, accepting that the knowledge generated would be influenced by her perspective, but not so far that the knowledge generated could not be externalised beyond the study (Sayer, 1997).

From this perspective, because the researcher inevitably has a role in the construction of knowledge, it is important to describe that process and attempt to render it open for inspection by others. Reflexivity allows a researcher to make visible the beliefs, values and experiences they feel impact on the construction of knowledge (Pillow, 2003). Throughout the study the researcher produced field notes and memos which acknowledged the impact of her current role as a trainee educational psychologist on her interpretation of data and described attempts to minimise the impact of this on the analysis (Appendix O).

### **2.2.2 Participants and Recruitment**

Primary school teachers were recruited as the evidence regarding the age of onset meant this group were more likely to work with pupils with SM (Cohan et al., 2006). Other school staff in different roles (e.g. teaching assistants) were excluded due to differences in the nature of their interactions with pupils (Rubie-Davies et al., 2010). During the study a participant who held the role of Higher Level Teaching Assistant contacted the researcher. Her role was described as being in keeping with that of a teacher. However, when interviewed her experience of the pupil was in a one to one capacity. Because this experience was in a different context to the other participants her data was not included in the analysis.

Participants were included if their experience related to a pupil who met a description of SM adapted from the DSM 5 (APA, 2013). This included: 1) the pupil did not initiate speech, or respond when spoken to in specific social situations but would in other circumstances; 2) the duration of the mutism was longer than one month and did not coincide with the onset of school; 3) the absence of speech was not related to an unfamiliarity with the language; 4) the lack of

speech was not better explained by other diagnosed circumstance. A formal diagnosis of SM was not required as children can experience SM without being known to diagnostic services (Martinez et al., 2015). Two participants worked with pupils for whom English was an additional language, however, they felt that they showed sufficient use of English in other circumstances, (e.g. with friends) for this not to account for their lack of speech.

Participants were required to currently teach, or to have taught in the past two years, a pupil with SM. This two year limit was enforced as it minimised the inclusion of constructed memories which may have been altered by later experiences.

Participants were recruited through opportunity sampling. This was necessary due to the low prevalence rates of SM (Viana et al., 2009). Other participants were identified through snowball sampling, where a previous participant put the researcher in contact with other potential participants. When a draft of the theory was formed thematic sampling was used. This involved sampling with the intention to explore the theoretical direction of the analysis (Charmaz, 2006).

The final sample consisted of 11 primary school teachers (3 male), aged between 23 and 61 years. All participants identified as White British / European. Participants taught in primary, infant or junior schools in four local education authorities in the South of England. Two teachers taught in the same school and their experiences related to the same pupil. Of the 11 participants, five were currently teaching a pupil with SM.

### **2.2.3 Data Collection**

Data was gathered through semi-structured interviews. This involved a conversation designed to cover certain topics with the flexibility to ask participants to elaborate on points of interest. An initial interview guide to support the conversation was created (Appendix F). As the theory developed and the process moved to theoretical sampling, another topic guide was created to explore participants' views on the draft theory (Appendix F). Each participant was asked to complete a short background questionnaire to provide additional contextual information to support analysis (Appendix G). All interviews were audio recorded so a transcript could be made and analysed. After every interview the researcher created field notes to capture contextual information which may have bearing on later analysis (Appendix H).

### **2.2.4 Procedure**

The researcher reached out to participants via contacts at schools they directly worked with and through local Educational Psychologists (EPs). This involved EPs sharing the study in schools where they knew of a pupil with SM and describing the study at meetings of professional

groups. An advert which described the study was used by the researcher and EPs. (Appendix I). Once participants expressed an interest in the study they were sent an information sheet which outlined the procedures and the recruitment criteria (Appendix J). A convenient time and location for the interview was agreed. All interviews took place at the end of the school day. Ten of the 11 participants chose to be interviewed at their school. One chose to meet in a local college as it was more convenient. All interviews took place in a private space.

Participants gave their written consent to be interviewed, recorded and contacted at a later time to potentially be re-interviewed (Appendix K). The researcher explained the purpose of the study and gave the opportunity to ask questions. The duration of interviews ranged from 28 to 51 minutes. At the end the participant was thanked for their involvement and received a £10 gift voucher in appreciation of their time. They were provided with a debriefing letter which explained and what they had participated in and what they could do if they required further information about SM (Appendix L).

Recruitment continued whilst data was simultaneously analysed using grounded theory methods. Recruitment and analysis continued until the researcher felt that theoretical saturation was reached, i.e. no new properties were emerging from the data (Charmaz, 2006). Participants one to 10 were interviewed between August 2016 and January 2017. The researcher felt that theoretical saturation was reached after the analysis of data from the 10<sup>th</sup> participant as no new categories were identified in this analysis or in the analysis of the previous two interviews. Exploring the draft theory with new and existing participants provided the opportunity to check the validity of the theory as a representation of their experiences (Charmaz, 2006). Participant 11 was interviewed in March 2017 and participants two and eight were re-interviewed in March 2017.

## 2.2.5 Ethics

The study gained ethical approval from the University of Southampton Research Governance Office in April 2016 (Reference: 19128). At the point of recruitment and at the start of each interview participants were informed that their participation would be anonymous, no identifiable information would appear in the study and pseudonyms would be assigned. It was stressed in the information sheet and verbally upon meeting that they had the right to withdraw at any time or to request data relating to them be made available or destroyed. The information sheet described how data would be stored, in keeping with guidelines from The Ethics Committee of the British Psychological Society (2009). At the end of the interview participants were given a debrief sheet which described what they had taken part in, how their data would be used and what to do if they had concerns about a pupil with SM or their involvement in the study.

## 2.2.6 Data Analysis

The audio recording of each interview was transcribed verbatim by the researcher in order to stay close to the data (extract in Appendix M). Data analysis followed grounded theory methods. In this approach data collection and analysis occurred simultaneously so the theory grew as data was collected. A constructionist approach outlined by Charmaz (2006) was followed. The stages of this process are outlined below and in Figure 4.

### 2.2.6.1 Initial coding.

Analysis began with initial coding of transcripts, where codes were used to summarise and label data. At this stage, and at every coding stage, transcripts were read and reread to maintain familiarity. Charmaz (2006) recommends looking for actions in the data rather than trying to leap to theoretical possibilities too soon. Transcripts were coded line by line with this approach. Table 4 demonstrates how initial line by line coding was conducted (longer excerpt in Appendix N).

Table 4

*Example of initial line by line coding*

Text	Code
We only, we only put the system in place for that amount of time cause by October half term we kind of realised this wasn't working for him (...OK) cause we're a junior school not an infants so we're getting to know the kids, erm, and we didn't want that to be the only system that he knew for the whole of his first year at junior school. So by February half term we then started to kind of wean it off and then say right on "Monday we'll meet you and then go have you", and he had a reward chart to come in on a Tuesday and um you know let's do this week and by the end of the spring term he was coming in nor, with like everybody else.	Limiting the intervention duration Realising / evaluating why intervention needed to end Understanding long term needs  Weaning him off intervention Using reward systems Succeeding with the intervention Conforming

Charmaz advocates the writing of memos during coding. A memo captures the thought processes that lead to certain codes being created (Charmaz, 2006). In the initial coding stage memos were written to capture interesting trends that could lead to more distinct categories at a later stage. An excerpt from a memo is shown in Figure 2 (full memo in Appendix O).

<b>Teacher / pupil relationship</b>
The teacher mentions a lot of concern and worry for the children she has taught. Especially ones who have moved on. She seems to get to know her pupils and has a lot of knowledge of them which she believes is important to share with others. Her relationship with the pupil allows her to tailor her approach.

Figure 2. Excerpt of a memo from the initial coding phase

### 2.2.6.2 Focused coding.

When trends emerged in the initial coding stage the analysis moved into a second stage of coding with greater analytical direction. Significant codes that emerged from the initial phase were given labels and applied to larger sections of the data. Existing transcripts were analysed by applying and adapting these codes. As data were collected each transcript was coded using these terms. Adaptations to the codes were made and new codes were introduced to ensure new data were accommodated. As focused codes grew, connections between them were identified and groups of codes began to emerge. These overarching groups contained a number of subthemes and grew into potential categories to form the basis of the theory. Categories captured shared characteristics that were central to participants' experiences.

A memo was created to show the thinking that underpinned a category and its sub-categories. An excerpt from a memo is shown in Figure 3 (full memo in Appendix P).

<b>Pupil Support</b>
This category arose from the participants' mentions of the ways that the pupil is supported. The root node contains any mention of support strategies. It also contains sub-categories which include: <ul style="list-style-type: none"> <li>• External agency support – instances where the teacher has worked with outside support services such as speech and language therapists and EPs. Originally this also included mentions of the desire to have this involvement but this was felt to be a separate issue and a new sub-category of 'ideal support' was added to the <i>Teacher as a Scientific Enquirer</i> category. This sub-category links closely with <i>Emotional Responses</i> and overall <i>Categorisation</i>.</li> </ul>

Figure 3. Excerpt of a memo from the focused coding phase

Coding at this stage was facilitated with N-Vivo 10 (QSR International Pty Ltd, 2012), a computer software package which is recommended as a powerful tool to assist with grounded theory (Hutchison, Johnston, & Breckon, 2010). The researcher discussed the emerging codes with a research supervisor to support the validity of the analysis.

### **2.2.6.3 Theoretical coding.**

Once the analysis started to reach theoretical saturation, when no new themes were emerging from the data, the analysis moved into theoretical coding. This involved the finalisation of categories developed in focused coding and the consideration of the relationships between them (Charmaz, 2006). The researcher found that categories captured processes that the participants engaged in. Analytic labels which represented these processes were assigned.

The categories and connections were developed into the first draft of a theory which told a story about the experience of teaching a pupil with SM. Each transcript was compared to this draft to look for negative examples where the theory did not fit. Theoretical sampling was used to gain feedback from one new and two past participants to test the theory against their experiences and perspectives. Participant two was chosen as she had been interviewed early in the research, before the theory had begun to emerge, and may not have mentioned aspects of her experience that related to all categories. Participant eight did not fit with some of the categories as strongly as other participants and the researcher wanted to check if it was representative of their experience. Feedback suggested that the participants felt that the theory reflected their experience. Changes to the direction of the relationship between categories was added to reflect participants' beliefs that some were reciprocally linked.

A coding manual was created which described the final categories and sub-categories in the theory in order to promote transparency (Appendix Q).

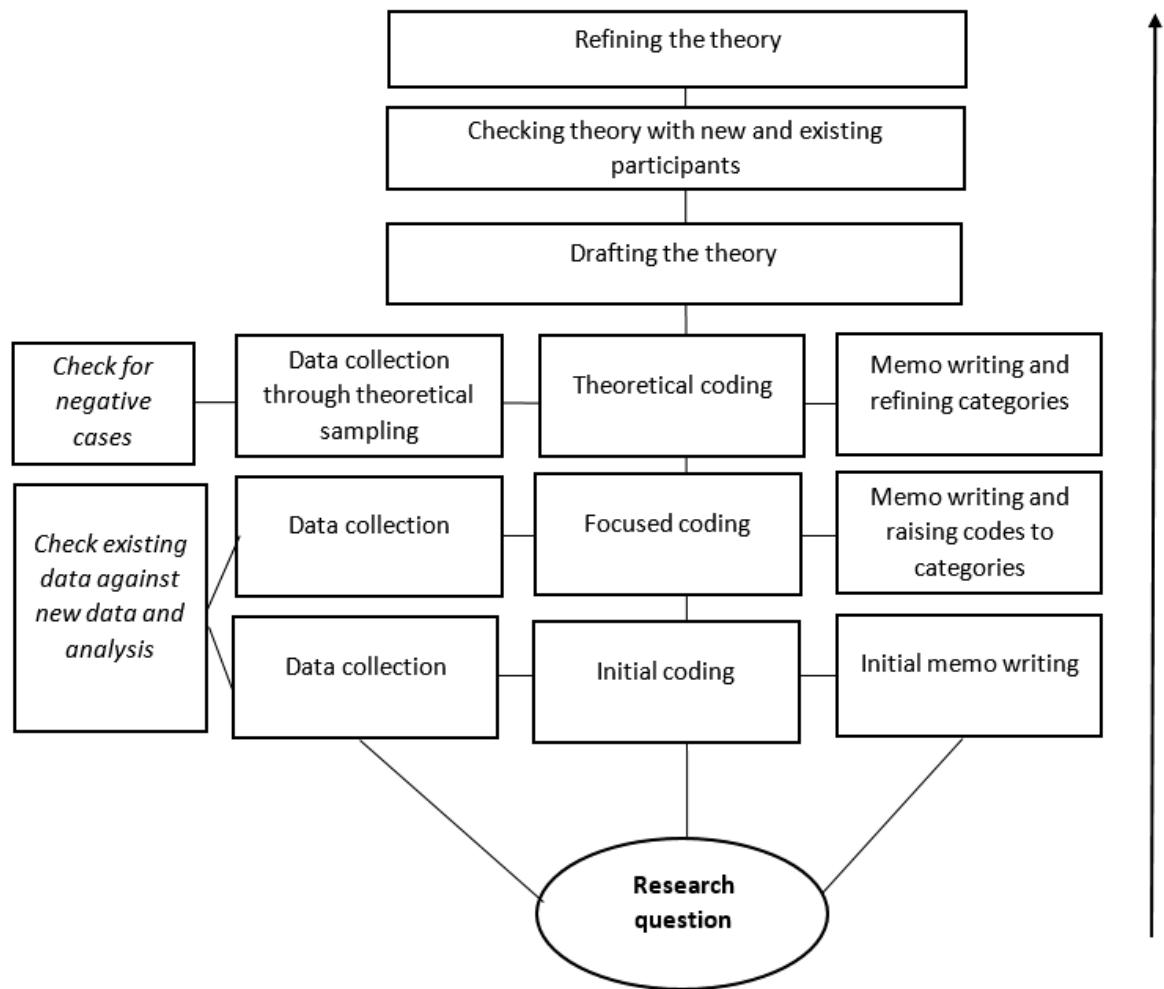


Figure 4. The grounded theory process (based on Charmaz, 2006, p.11)

## 2.3 Results

Nine categories were constructed to create a theoretical representation of primary school teachers' experiences of working with a pupil with SM. These are illustrated in Figure 5. Five core categories linked together: '*Categorisation*', '*Teacher as a Scientific Enquirer*', '*Supporting Pupils*', '*Measuring and Monitoring*' and '*Responding Emotionally*'. These categories captured the key aspects of participants' experiences and the connections between them showed how these impacted on each other. The core categories and the connections are shown inside the oval in Figure 5. Arrows are used to demonstrate the direction of the relationship between them. The model starts on the left with *Categorisation*. This was closely linked to *Teacher as a Scientific Enquirer* and these categories drove the rest of the model. *Categorisation* captured how teachers developed categories to represent their beliefs about SM and used these to guide their practice. To help them develop their categorisations they engaged in a process of enquiry to test ideas and develop new information, this was named *Teacher as a Scientific Enquirer* as this mimicked aspects of scientific methodology. Engaging in enquiry could lead the teacher to develop new

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categorisations, therefore these two categories had a symbiotic relationship. *Supporting Pupils* is at the centre of the model, reflecting the importance of this category to teachers and to the aims of the study. This captured the type of support teachers put in place. This differed depending on the teacher's categorisation of SM and the information gained through scientific enquiry.

*Measuring and Monitoring* occurred as a direct result of *Supporting Pupils*. It reflected the process of assessing the pupil's progress in relation to the support that was in place. This information could alter the type of support, therefore these two categories had a dual-way connection.

*Responding Emotionally* captured the teachers' emotional responses to their experience. This was directly influenced by the process of scientific enquiry, supporting the pupil and the outcomes of the monitoring process. An emotional response could alter the type of support teachers put in place, therefore these two categories had a symbiotic relationship.

Participants mentioned a number of factors that did not fit into the five core categories but influenced their experience of these. These factors provided a broader context in which the dynamics between the core categories occurred. They were referred to as contextual factors and were grouped into four categories. '*Pupil Profile*' captured the influence of the pupil's individual differences; '*Peer Relationships*' highlighted how the response of peers affected the experience; '*Staff Self-Identity*' described the influence of the unique character of the teacher and '*Staff Relationships*' captured how participants' relationships with colleagues impacted on their experience.

In this section the five core categories will be discussed first. Each category will be described and the theoretical links between them will be explained. The contextual factors will then be described. Some categories contained sub-categories which related to specific features of the experience. Those most pertinent to the theory are discussed. A full list of the categories and sub-categories can be seen in Appendix Q. A case study of a participant whose experience was broadly typical illustrates the theory in Appendix R.

Quotes from participants are used to support the results. Hesitations, interruptions and repetitions have been removed for ease of reading but quotes reflect the participant's original meaning. All names have been replaced with pseudonyms.

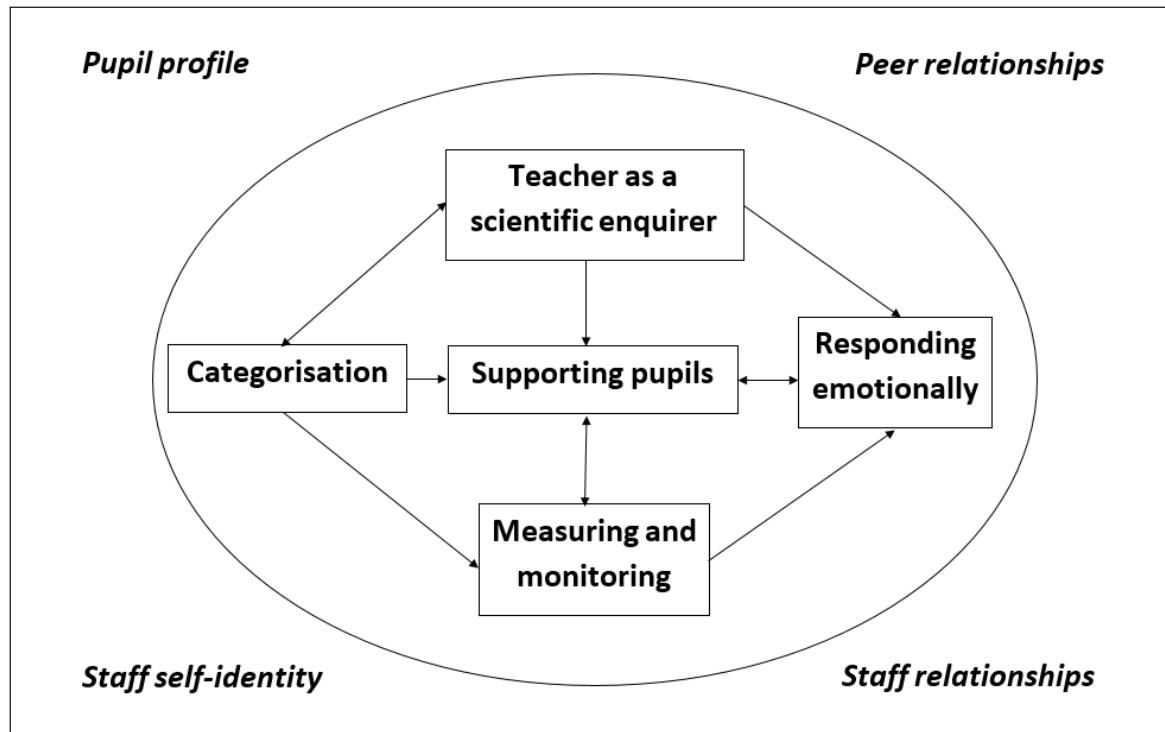


Figure 5. Theoretical representation of primary school teachers' experiences of teaching a pupil with SM

### 2.3.1 The Five Core Categories

#### 2.3.1.1 Categorisation.

Participants had different ways of making sense of SM but all expressed views about what they believed it to be and placed it in a category of their own understanding. A broad range of categories emerged including the view that SM was a condition that needed to be diagnosed and treated, that it was linked to anxiety, and that it was an aspect of the pupil's character.

The process of categorisation served the teachers to better understand the pupil, guide their decisions and justify their teaching practice. For example, Olivia felt that SM was a part of her pupil's individual characteristics and therefore did not feel that she needed a specific intervention to target his speech.

*"I shouldn't think anyone should make a massive deal out of it. Like I say if there was an underlying other problem then yes it would be worrying, but I think because the way he is, he is just a normal boy, he just needs to be treated normally." (Olivia)*

A common dichotomy in categorisation was whether SM was viewed as the pupil's choice or not. The view that SM was not a choice linked to perceptions that it was a condition or an anxiety disorder and the behaviour was outside of the pupil's control. The interpretation that the

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pupil chose to be mute connected to the view that the child used the behaviour to be manipulative.

*“Sometimes she’d play one of us off against each other, even with the child that would speak for her, so sometimes I think she was a bit, sneaky.” (Emma)*

However, this was not consistent for all participants. Olivia viewed SM as a choice but she attributed no motive to the behaviour, viewing it instead as a quirk of the pupil’s character.

*“I don’t think as a teacher you should necessarily worry about it because that’s his choice.” (Olivia)*

Teachers’ beliefs were not fixed and they described instances of their categorisation changing due to new information being gathered. They could also hold multiple beliefs and simultaneously placed the behaviour into more than one category.

### 2.3.1.2 Teacher as a scientific enquirer.

This category captured the desire that all participants had to develop a better understanding of the pupil and the mute behaviour. The participants took part in a process of enquiry where they developed theories about what was going on for the pupil and tested these out. Theories were accepted, rejected or redefined depending on the evidence they gathered.

The belief that there was an underlying cause to SM was often stated. Participants thought that knowledge of an underlying cause held the secret to achieving successful outcomes.

*“I’d be determined to see if I could find out what the reasoning is behind them choosing to be a selective mute to see if I could help them to start talking.” (Emma)*

Teachers generated hypotheses about the cause of the mutism based on information they gathered from several sources including colleagues, external professionals, published materials (usually websites) and their observations. Participants would draw upon their existing knowledge too, comparing and contrasting the characteristics of pupils with SM to children they had previously taught with other needs. This helped them identify the unique features of SM and to generalise support strategies.

Participants mentioned a number of hypothetical reasons for SM they had generated. Examples included, a family propensity, early childhood trauma and a specific fear of self-expression. These hypotheses shaped the teachers’ practice and guided their next steps in supporting the pupil. When a hypothesis did not lead to favourable outcomes new hypotheses were generated. Emma described trying a range of strategies based on her observations.

*“We knew she was talking to her peers ...so then we thought ‘ok maybe we will ... put her into groups with that friend so that we might be able to hear her speak or have her ideas’...but she completely shut that down.... [We got] her mum to come into the*

*classroom more and work alongside her... but we still found even with mum there...she wouldn't speak." (Emma)*

Participants also hypothesised about what the pupil may be thinking and used this projected interpretation to guide their practice. Olivia provided an example of an instance when her pupil had not begun his work.

*"Why is he not doing that, is that because he hasn't got a pencil and he can't ask, or is it that he's not really sure of the task, or because he can't see the board?" (Olivia)*

The process of generating and exploring hypotheses influenced the decision to describe teachers as scientific enquirers. This process involved more than just wanting to find out about SM, it captured elements of a scientific methodology where theories were generated, evidence was gathered and hypotheses were accepted or rejected. Furthermore, classifying information into categories is present in scientific disciplines such as biology and chemistry. Therefore, *Scientific Enquirer* was deemed a fitting metaphor to describe this process.

#### ***Theoretical links.***

*Teacher as a Scientific Enquirer* was related reciprocally with *Categorisation*. The categories the participant placed SM into influenced the degree to which they engaged in the process of enquiry. The urge to identify an underlying cause was weaker for participants who viewed SM as an individual characteristic of the pupil that should be accommodated rather than changed. The process of enquiry could also alter participants' beliefs about the categorisation of SM. Information gathered through this process led to new interpretations of the behaviour. Ella described her shift in thinking from perceiving a pupil to be manipulative to seeing her as anxious and too scared to speak based on discussions she had with a speech and language therapist (SALT).

*"In the beginning I found it really tricky and I thought 'oh God, she's just a stubborn little madam she won't talk...it wasn't until I met the speech and language lady that I realised it was based on her anxiety...she's petrified, she is anxious and so she probably wants to talk but the anxiety is stopping that like voice from coming out...It took someone to actually come and explain it and put it in such simple terms." (Ella)*

#### **2.3.1.3      Supporting pupils.**

Participants spoke at length about the support they put in place for pupils or wished to put in place. Strategies varied depending on the pupil's needs but often involved making changes to the environment, such as sitting them near peers they were more likely to communicate with.

Teachers reflected on the reasons as to why support strategies had been successful or not. Harriet described how she felt the age of the pupil and the flexibility of her class environment positively impacted on her ability to support the child.

*"He likes talking in the book corner so we would take activities into the book corner and try to introduce activities in there. But that's just the sort of thing we would do for any child. That's why it's easier in the reception class. Once they get to the older classes it becomes much more difficult." (Harriet)*

Other teachers found that the class environment presented a challenge due to space constraints and conflicting demands of other pupils.

The impact of working alongside the pupil's family was another significant factor that impacted on support. For some teachers the link with parents was well established and meant that support strategies were applied consistently across settings, leading to a more positive perception of outcomes.

*"It does help that he has an incredibly understanding and supportive mother that trained him to do lots of things." (Tim).*

For other participants it had been difficult to engage family members and they felt this acted as a barrier to them being able to provide the support they would have liked.

*"Unfortunately mum wasn't the most forthright person... she was very good when I spoke to her in person she was "oh yes, yes I'll do that, I'll do that" but we didn't get a lot of things from her." (Emma)*

A common perception was that external agency support (e.g. Speech and Language and Educational Psychology) was difficult to come by and that pupils with SM were not a priority. Budget limitations meant resources went to pupils with more significant behavioural or learning needs.

*"I would probably have liked to have had a speech therapist spend some time with her because they might have had some ideas or strategies with things that I could have used. I find, especially in this location their time constraints...there seems to be more, the priority seems to go to other children that have got more of a need."*  
*(Emma)*

#### ***Theoretical links.***

Participants thought carefully about the type of support to offer their pupils. This was closely linked to their categorisation of SM. Teachers who felt the mutism was due to anxiety enacted strategies to make the child feel more relaxed and comfortable at school, whereas those who accepted it as a unique characteristic were more likely to focus on academic outcomes. Cathy's categorisation of her pupil's mutism was that it linked to anxiety. Therefore the focus of her support was to help him feel comfortable with others at school.

*"The first year that we had him we felt that he needed nurturing and knowing that there are adults and children in the school that are there to support him." (Cathy)*

*Supporting Pupils* also linked to *Teacher as a Scientific Enquirer*. The process of enquiry was driven by the participant's belief that it would inform them how to support the pupil.

*"We tried to figure out what, if there was something that was causing her to not want to talk at school..." (Emma)*

#### **2.3.1.4 Measuring and monitoring.**

Measuring a pupil's progress and monitoring the impact of support was a significant aspect of the teachers' experiences. Perceptions of what constituted progress or successful outcomes varied and were linked to the categorisation of SM. Examples included an increase in non-verbal communication, the pupil feeling relaxed and the pupil being able to reach their full potential. The teachers generally had an empathetic view towards pupils with SM. This was reflected in aspirations which prioritised pupil well-being.

*"Firstly I want him to be safe, and feel secure and be happy." (Sophie)*

A desire to hear the pupil speak was reported by all participants but the reasons differed. Some participants felt the pupil's lack of speech prevented them from reaching their potential.

*"You think 'what you've got is fine but I know we can take this further, I know if you were to talk with me and I could ask you some questions and we could take it further verbally'." (Nathan)*

Alternatively, and sometimes simultaneously, participants felt speech demonstrated that the pupil felt comfortable in school.

*"I would always want pupils to be confident in talking to their peer group and giving their opinion and not feeling like they are going to be shut down." (Billy)*

A significant sub-category was the impact of having to work within policies introduced by external sources at a local or national level. Local frameworks included school, or local education authority policies. Cathy described the difficulty of consistently applying the school's behaviour policy when a pupil with SM unexpectedly shouted out in anger during a lesson.

*"You needed to follow the behaviour policy, but you know that was his attempt at trying to communicate what was really going on. When he did it I was like "that's not right... but tell me more." It was a really difficult balance and the other boys would then see that he wouldn't necessarily get in trouble as much as they did for it..."*

*(Cathy)*

Participants had strong views on the difficulty of adhering to the national curriculum. All felt that it was difficult to make accurate assessments of a child with SM as many curriculum standards required the pupil to demonstrate a verbal understanding. Consequently they felt their academic assessments did not capture the child's true ability.

*"I think the curriculum isn't made for a child with selective mutism, and I know they say you have to differentiate and try and fit in, but some of them you can't fit in. He's never going to be able to explain anything to me, never going to be able to discuss or talk about... the reading and the writing criteria is all about discussing your work, reading it out loud, saying a sentence before you write it. He can't access that."*

*(Sophie)*

***Theoretical links.***

The category of *Measuring and Monitoring* closely linked to *Supporting Pupils*. The outcomes that teachers monitored related to the support strategies they put in place and were used to judge if the strategy had been successful. The monitoring information informed teachers if the support was working and whether to carry on, alter their strategy or seek additional support. Perceptions as to what successful outcomes would look like were influenced by the teachers' categorisation of SM.

**2.3.1.5      Responding emotionally.**

The experience of working with a pupil with SM evoked a range of emotional responses in teachers. Frustration was frequently reported but it took different forms. Predominant was a helpless frustration where the teacher felt they were not getting the best out of the pupil but were not sure how else to do this. Linked closely to this was the feeling that they were letting the pupil down.

*"I do feel quite sad about the situation at the moment. I feel I'm failing her... because I don't know how to help her or how else to help her." (Lisa)*

There were occasional references where participants described feeling frustrated in anger. This was more likely to occur when the pupil did not make progress towards the outcomes the teacher hoped for, despite a high level of support. Emma hoped her pupil would speak to her and found it difficult that the pupil would talk to other adults in school.

*"Occasionally she would actually talk to another adult, not in our base, we might have had a visitor come in once and she would speak to that visitor and that frustrated us because we were thinking, well what? Why? How?" (Emma)*

Negative emotions were rarely directed towards the pupil. Teachers tended to talk about them with empathy and understanding.

*"You've got this child that's really uneasy and every movement she made is awkward and oh it just breaks your heart. You want to see her enjoying herself." (Ella)*

Participants made several references to finding the experience of teaching a pupil with SM challenging. This was interpreted in two ways. The first captured how having a pupil with SM in class took up time and made teaching more effortful.

*“That was the hardest thing because it took a lot of my time up and the class at the time were quite demanding.” (Cathy)*

Others valued the challenge and saw it as an opportunity to develop their skills.

*“I liked the challenge that it provided me in having to problem solve and overcome ways...” (Helen)*

### ***Theoretical links.***

*Categorisation* of SM indirectly influenced the teachers' emotional responses. Beliefs about SM led the participants to put certain support in place, with the hope that this would lead to outcomes related to this categorisation. For example, Lisa and Ella felt the pupil was too anxious to speak and hoped that intervention to address this would lead them to feel more relaxed and able to talk. When these outcomes weren't achieved it led them to feel failure and disappointment. Olivia and Nathan accepted SM as a part of the pupil's character and were less focused on achieving outcomes relating to speech, they did not experience so many internalised feelings.

The process of engaging in *Scientific Enquiry* led some teachers to view SM in different ways and with this came a change in emotional response. Ella described her feelings towards the pupil after she associated the behaviour with anxiety and not defiance.

*“You could really see the anxiety in her body as well, like really awkward and like quite a lot of the time her shoulders were up in her neck, oh it was really quite sad.”*  
(Ella)

*Supporting Pupils* had a reciprocal relationship with *Responding Emotionally* whereby the process of supporting a pupil triggered an emotional response in the teacher which in turn influenced their decisions regarding support.

### **2.3.2 Summary of the Five Core Categories**

Teachers placed SM into categories of their own understanding which affected the support they put in place for the pupil and the outcomes they hoped for. They were driven to find out more information and engaged in a process of enquiry, behaving like scientists, to help develop their categorisations. Their experience of each of these core categories resulted in an emotional response which could influence what they did to support the pupil.

### **2.3.3 Four Contextual Factors**

#### **2.3.3.1 Pupil profile.**

The participants spoke at length about the pupil's individual profile in order to provide background context. The pupil's level of non-verbal communication had a significant impact on

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teachers' experiences. When the pupil used gesture and facial expressions the teacher was able to use these to help them meet the pupil's needs and judge their level of understanding.

*"Sometimes he'd just he'd nod to say 'yeah I'm fine' or he would literally screw his face up if he didn't get it and he had quite the scowling kind of face if he didn't get it or he didn't want to do it. So then you knew..." (Cathy)*

The level of non-verbal communication differed, with some teachers perceiving that they had few cues to work with. Relatively high levels of non-verbal communication linked to a positive emotional response.

Individual differences in pupil progress also impacted on teachers experiences. When a pupil was making good academic progress teachers were less concerned about the process of measuring and monitoring.

*"I think actually the emphasis on verbal assessment in reading bizarrely has kind of backed off and we are seeing more emphasis on written comprehension...actually he's doing ok with that one and he is developing his longer comprehension skills so I'm ok with his verbal development." (Nathan)*

### 2.3.3.2 Peer relationships.

The relationship between pupils with SM and their peers significantly influenced the teachers' experiences. In some instances peer relationships were challenging and made working with the pupil difficult. Cathy described how the boisterous behaviour of peers inhibited her pupil. This made him withdrawn in class, but she lacked the resources to support him away from this setting. This led Cathy to feel frustrated that she could not support the pupil as she would have liked.

*"Some of the relationships he had with the boys in our class, they were quite a loud, rowdy bunch and their social skills weren't very attuned... they would get into squabbles or situations...so it was all just too much, and even if it wasn't directed at him, we'd find out later that so and so had done something to somebody else and he didn't like it." (Cathy)*

Eight participants described that a pupil with SM had a peer they would communicate verbally with if the teacher was not present. This relationship was valued as it provided a channel of communication that made it easier to for the pupil to get their needs met and for the teacher to be reassured that they understood what was going on.

*"So when he needed something like that he would have a pre-arranged signal with his friends who would say "Mr Jones, Andy needs to go to the toilet." So I would, you know and that would be great." (Tim)*

### 2.3.3.3 Staff-self-identity.

The previous experiences and personalities of the participants influenced several core categories. For some participants more years in teaching meant they were confident they could effectively teach a pupil with SM when they first encountered them.

*“[I felt] pretty neutral to be honest. I can see how in previous times I might have been more anxious... he was difficult but certainly wasn’t unteachable.” (Tim)*

Four participants had taught a pupil with SM before. This provided them with a sense of familiarity when they encountered the behaviour again. Nathan found this reassuring.

*“It helped me in a sense that I wasn’t suddenly going ‘my goodness I’ve got someone who won’t talk, what am I going to do?’ I realised it’s actually quite possible to have a happy successful child in your classroom in the short time that I had the little girl.”*

*(Nathan)*

This familiarity also meant they had some idea as to how they could support the pupil. However, a pupil’s individual differences meant that previously successful hypotheses and strategies did not always yield the same outcome with a different student. Harriet described how her former hypotheses about parental influence did not relate when she encountered a second pupil with SM.

*“A family that we had recently there was a lot of pressure from the parents ...I don’t really know where it came from with that [second] family because parents weren’t particularly pushy... [The first family] were quite shy I would say whereas the others we had recently, they’re not shy.” (Harriet)*

### 2.3.3.4 Staff relationships.

The degree to which the participant felt supported by colleagues in school impacted on their experience. Teachers such as Lisa, Sophie and Ella felt that they had good support from the school Special Educational Needs Coordinator (SENCo) and were able to access relatively more resources.

*“I think because she [The SENCo] realised that she wasn’t the fountain of knowledge she was the one that initiated that lady [SALT] coming in and working with us, that was fab.” (Ella)*

However, not all staff relationships were seen as supportive. In some instances participants perceived a sense of competition from colleagues as to whom the pupil would talk to. This contributed significantly to participants’ emotional responses, especially when speech was the desired outcome for their involvement. It was a key factor that led Emma to feel frustrated and angry during her experience.

*"She came over and she was "oh Evie's spoken to me" so it was a little bit like rubbing salt in the wound with myself and the TAs." (Emma)*

#### **2.3.4 Summary of Contextual Factors**

The contextual factors provided a context in which the processes captured in the five core categories took place. Each one captured a distinct source of influence.

These categories did not have specific theoretical links, they could influence experience relating to any of the five core categories or the dynamics between them. They captured the factors that made each teacher's experience unique.

### **2.4 Discussion**

The study aimed to construct a theory that represented the key aspects of primary school teachers' experiences of working with a pupil with SM and to consider how these linked together. The proposed theory captured five key aspects of this experience. Teachers' beliefs about SM caused them to place the behaviour into specific categories of understanding. They engaged in a process of enquiry, behaving like scientists by collecting evidence, generating hypotheses and testing them out in order to better understand the pupil. These two key processes impacted on the support teachers put in place for the pupil and the outcomes they hoped for. The experience of teaching a pupil with SM evoked an emotional response that varied depending on the teacher's individual experience of other categories within the model. The five core categories could be influenced at any stage by four contextual factors including the pupil's individual profile, their relationship with peers, the teacher's relationship with staff and the teacher's unique identity. In this section the theory will be discussed in relation to existing literature, with emphasis on the key processes of *Categorisation* and *Teacher as a Scientific Enquirer*.

The theory demonstrated how participants came to place SM into certain categories. Beliefs related to these categories then influenced their practice and vice versa. Previous studies have found that teachers are reluctant to categorise children based on their behaviour and dislike the use of diagnostic labels which lead to stigmatising beliefs about the child (Moore, Russell, Arnell, & Ford, 2017). In the present study the process of categorisation did not refer to the application of established diagnostic labels; in fact many participants expressed an aversion to applying the term selective / elective mute. Instead, categorisation captured a process whereby participants integrated their beliefs into a representation of what they felt SM is in order to make sense of the phenomenon and formulate ideas for their practice.

The theory highlighted how teachers' categorisations of SM influenced the type of support they put in place. For example, some accepted SM as a characteristic of the pupil and did not feel

that targeted intervention was necessary. This echoed the findings of a study that explored educators' perceptions of shy pupils. Those who viewed shyness as an aspect of the pupil's character felt targeted support was not required (Korem, 2016). This suggests that teachers can act as gatekeepers to targeted intervention, depending on their perception of the pupil's difficulties. The literature base for SM states that there are associated academic and social impairments for pupils with SM which targeted intervention can help to overcome (Bergman et al., 2013; Zakszeski & DuPaul, 2017). Furthermore, the literature review for the present study highlighted that teachers rated significant improvements in speech based outcomes (after pupils with SM took part in intervention), without a corresponding significant improvement in the pupils' level of anxiety (Bergman et al., 2013; Klein et al., 2016). A categorisation of SM that does not consider affective factors could lead to an intervention that only targets speech, leaving psychological issues unresolved. The theory highlights how the teachers' categorisations of SM may prevent some pupils from accessing intervention that can preclude negative outcomes. However, the theory also demonstrates that teachers can alter their categorisations of SM through the process of scientific enquiry. This suggests that teachers can be supported to alter their categorisation so it incorporates an understanding of the benefits of targeted intervention.

The process of scientific enquiry aligns with the concept of professional theorisation. This is a reflective process whereby professional practice is guided by theoretical beliefs developed through personal experience (Ertas & Irgens, 2016). However, solely relying on personal experience can lead practitioners to become stuck in their thinking; teachers should also reflect on general theories that are established in their profession, such as education policy and research (Ertas & Irgens, 2016). In the present study participants developed theories about SM and used these to generate hypotheses, accepting or rejecting them in light of gathered evidence. This was mainly based on information gathered through their experience, with some accessing research relating to SM but usually from unverified web sources. A minority had access to specialist support professionals who provided new theoretical information. Difficulty accessing external services was a key aspect of participants' experiences and is in keeping with findings from previous studies (Omdal, 2008).

The rationale for this study was to better understand teachers' perceptions of pupils with SM. It was proposed that these can influence the support pupils receive (Martinez et al., 2015). However, no systematic exploration of this had been conducted in the UK. In the present study emotional responses were a key aspect of participants' experience but they were a by-product of other processes in the theory. Categorisation had the most influence over pupil support.

In line with previous literature, participants described the experience of working with a pupil with SM as frustrating (Cleave, 2009; Omdal, 2008). However, the study gained more nuanced information about the nature of this frustration. It often linked to the incongruence

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between the teacher's desire to help and not knowing how to effectively do so. Participants showed more concern and empathy for pupils than previous literature emphasised. Nevertheless, there were some references where participants expressed feeling angry. This reflects earlier claims that teachers see SM as a defiant behaviour which causes them to feel anger with the pupil (Imich, 1998). However, in the present study this was an exceptional rather than prevalent view.

### 2.4.1 Implications for Teachers

The theory highlights how teachers' categorisations of SM are key to the type of support pupils receive. These can be influenced and changed through the process of scientific enquiry. Access to more reliable information about SM during this process would help teachers develop their categorisations and support strategies. The teaching profession is already encouraged to use evidence informed practice (EIP: Biesta, 2007). Senior leaders needed to promote EIP, model its application and provide opportunities for staff to reflect on evidence for it to become part of their regular practice (Brown & Zhang, 2016).

The contextual factors (*Pupil Profile, Peer Relationships, Staff Self-Identity and Staff Relationships*) demonstrate how unique circumstances will affect the experience of working with a pupil with SM. Several of these can be addressed by school staff to improve outcomes for pupils. These include: 1.) Schools should take steps to ensure the teacher has an adequate support network of colleagues as participants were more inclined to feel positively about their experience when they felt supported by staff members. 2.) Working collaboratively with parents assisted in supporting the pupil for many participants. Therefore good working relationships with home are desirable. 3.) Several participants appreciated the pupil speaking via a peer as this eased communication. However this reinforces to the pupil that speech can be successfully avoided and should be discouraged (Cleave, 2009).

### 2.4.2 Implications for Educational Psychologists

EPs are a widely accessed source of support in primary schools (Sharpe et al., 2016). Much of the direct work of an EP is conducted through a consultation approach, where the aim is to facilitate change in situations where staff are uncertain how to proceed (Wagner, 2008). The present study provides a framework which EPs can use to facilitate discussion about specific instances of SM. EPs should consider if a change in the teacher's categorisation of SM may result in more effective forms of support or more realistic expectations for outcomes. Helping teachers to change categorisation is in keeping with the practice of 'reframing thinking.' This is a process EPs facilitate to help service users think about situations differently and become open to new approaches (Woolfson, Whaling, Stewart, & Monsen, 2003).

EPs can provide information about SM which teachers can incorporate into their process of scientific enquiry. Educating SENCos and encouraging them to disseminate information about SM will help raise the awareness of pupils with SM as a vulnerable group. This information should include the characteristics of SM, the potential long term impact and the findings of more recent and reliable RCTs regarding effective intervention approaches (see Bergman et al., 2013, Oerbeck et al., 2014). Sharing this information with school staff and parents means they can take proactive steps to prevent the negative impact of SM and ensure that reactive strategies are appropriate (Busse & Downey, 2011). EPs must promote their role as an agency of support in this area and ensure they have a thorough and up to date understanding of SM.

#### **2.4.3 Broader Implications and Formal Theory**

Glaser and Strauss (1967) discuss that substantive theories (theories based on a specific conceptual area) can form the basis of formal theories (broader theories that capture a wider phenomenon.) “A theory at such a conceptual level, however, may have important general implications and relevance and become almost automatically a springboard or stepping stone to the development of a grounded formal theory” (Glaser & Strauss, 1967, p.79).

The present research is grounded in primary teachers experiences of working with pupils with SM and therefore represents a substantive theory. However, it is possible that this theory has broader implications. It has been established that the findings of this study echo those found by Korem (2016) in relation to shy pupils, and that SM is considered to be an early form of SAD (Muris & Ollendick, 2015). It is therefore plausible that the theory may capture the wider experience of teaching pupils with internalising behaviour, or, even more broadly, children who have a specific educational need.

In this instance, the implications of the theoretical model would become wider reaching, especially if teachers’ categorisations of behaviours relative to a range of conditions and needs influences the type of support they put in place for pupils. If this connection exists the role of the teacher as a gatekeeper to effective intervention could be occurring on a wide scale. This would be a systemic issue that would need to be addressed on a local and national scale by education policy makers. Furthermore, if the process of scientific enquiry can adapt teachers’ categorisations (and therefore the type of support pupils receive) for a range of conditions and needs then teachers’ access to evidence based information during enquiry could be crucial to providing the best support for many groups of pupils. Given the significance of these implications the present theory should be explored further, to see if it can be expanded into a broader formal theory.

#### **2.4.4 Directions for Future Research**

The present study provides rich data and the first explanatory framework to represent teachers' experiences of working with pupils with SM. Further research to explore the nature of the relationships between the categories is needed to add credence to the theory. A key starting point is the exploration of the relationship between *Categorisation* and *Supporting Pupils* as this is the connection with the greatest implications for the child's experience at school. In the present study the researcher did not create sub-groups of categorisations as these were felt to be personal to the participant. Future research should aim to capture these categorisations in more depth and could use quantitative methods to test potential causal links between categorisations, support strategies and outcomes for pupils with SM.

As the study progressed it became apparent that targeted interventions often fell to support assistants to deliver. This means that a different population has more direct involvement in implementing support. There is scope for their beliefs to also impact on the way they interact with pupils and the effectiveness of intervention. A systematic exploration of their perceptions and experiences to complement the present study would provide a thorough overview of primary educators' experiences of this phenomenon.

It has been discussed that the present theory could capture elements of a broader, formal theory relating to teacher's experiences of working with pupils with internalising behaviour (e.g. anxiety, shyness) or, perhaps more generally, pupils with a specific educational need. Given the discussed potential implications this has for pupils' access to support and to education policy it is important that this is explored further. There is scope for future researchers to build on the presented theory and explore whether the model can be successfully applied and expanded to include teacher experience of working with pupils with a range of needs and conditions, rather than SM exclusively.

#### **2.4.5 Methodological Reflections**

Grounded theory methods allowed the present study to develop the theory inductively from participants' lived experience. It captured the salient parts of the experience but also represented how these impacted on each other in a dynamic process. It was therefore well suited to the aims of the study.

The use of a social constructionist approach meant the researcher recognised that her experiences and beliefs impacted on the creation of the theory. By engaging in reflexivity through memo writing and supervision she became conscious that her role as a trainee EP impacted on her interactions with participants, whereby she felt compelled to help them support the child and

re-frame thinking. Awareness of this meant that she took steps to maintain a neutral position in interviews and when analysing data.

A radical social constructionist stance might suggest that the present study is only a reflection of the interactions between the researcher and the participants, another researcher would have constructed a different theory due to their differing experiences, therefore no generalisable meaning can be attributed to the results (Hoijer, 2008). However, the study adopted a weak social constructionist position following Charmaz who states that “social constructionists can invoke the generalising logic of objectivist grounded theory but do so in full view of their measured assessments, not in absence of them” (Charmaz, 2008, p. 408). The researcher believes the present theory highlights a number of implications that should be generalised to real-world practice whilst recognising her role in their creation.

Steps were taken to ensure the validity of the theory presented. The researcher made use of supervision to check her coding and analytical direction; all transcripts were checked against the drafted theory to see if it captured the experiences described and the researcher discussed the theory with one new and two existing participants to gain their views. However, attempts to check the theory with more new and existing participants would strengthen the validity of the theory.

The participant sample consisted of more female than male participants (8 to 3) which is representative of a national trend in primary school teaching where 85% of teachers are female (Department for Education & The Office of National Statistics, 2016). The intention was to recruit diversely, however the limited availability of participants due to the low prevalence rates of SM meant it was not possible to purposively sample by ethnicity and all participants identified as White British / European. Furthermore, the use of opportunity sampling resulted in a group of participants who were motivated to take part in the research, therefore they may represent a distinct group who share similar values but may not be representative of the whole population of teachers of pupils with SM. Recruitment from a wider and more diverse population is therefore recommended to improve the transferability of findings to other settings.

Before each interview the researcher shared her previous experience as a primary school teacher. This was done to put the participant at ease and promote a feeling of empathy and curiosity rather than acting as a knowledgeable expert (Leech, 2002). It was hoped that participants would feel able to talk openly and honestly but given the nature of the discussion it is possible that participants did not express certain views for fear that they would be perceived negatively. The theory is therefore a reflection of what they chose to share on that day.

#### **2.4.6 Conclusion**

To date this is the only systematic exploration and theoretical representation of primary school teachers' experiences of working with a pupil with SM. Grounded theory methods were used to develop a theory which captures how teachers' beliefs about SM form categorical representations which guides their thinking and practice. This appears to influence the support pupils receive and the outcomes they are expected to achieve. It also highlights how teachers are driven to find out more about the situation and engage in a process of exploration that mimics aspects of scientific methodology. Importantly this process allows teachers to adapt their practice and to develop new categorisations of SM. Teachers need access to accurate information about SM to assist them with the process of scientific enquiry. EPs should be a source of this but also use the dynamics of the theory to intervene in specific situations to ensure optimal support for the pupil is in place. The presented theory is a foundation for future investigation and it is hoped that it will lead to greater awareness of the influence of the teacher on outcomes for children with SM.

## **Appendices**

- Appendix A: Literature Review Search Terms
- Appendix B: Literature Review Inclusion and Exclusion of Articles
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- Appendix D: Overview of Scores from Quality Checklist (Downs & Black, 1998)
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- Appendix O: Example of an Initial Coding Memo
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## Appendix A                    Literature Review Search Terms

Frequently cited papers in the literature were scrutinised for key terms to provide the basis of the search (Anstendig, 1998; Cohan et al., 2006; Krysanski, 2003; Muris & Ollendick, 2015; Sharkey & McNicholas, 2008; Pionek-Stone et al., 2002). Different combinations of search terms were then explored using EBSCO as this platform supported two out of four databases to be searched (PsychInfo and Medline). Initially multiple terms relating to the key areas were used. The EBSCO dictionary of terms was explored to see what sub-categories these contained when they were exploded and these were included as separate searches. Table 1 is an example of such a search. It yielded 3794 results.

Table 1.

*Example of an initial search strategy*

Term 1		Term 2	
	Selective mutism	AND	Intervention
OR	Elective mutism	OR	Treatment
OR	Mutism	OR	Therapy
OR	Mute	OR	School based intervention
OR	Selective mute	OR	Clinical intervention
OR	Elective mute	OR	Cognitive behavioural therapy
OR	Social anxiety	OR	Cognitive behavioral therapy (American )
OR	Social phobia	OR	Contingency management
		OR	Exposure therapy
		OR	Behavioural therapy
		OR	Psychosocial intervention
		OR	Drug therapy
		OR	Pharmacological treatment
		OR	Pharmacological intervention

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The search was refined by exploring different combinations of terms. The strategy that provided a comprehensive yet manageable amount of references was to use key phrases which acted as an umbrella term for smaller categories. E.g. 'therapy' covered all types of therapy such as family therapy and cognitive behavioural therapy. The final search terms are shown in Table 2

Table 2.

### *Final search terms*

<b>Term 1</b>			<b>Term 2</b>			<b>Term 3</b>		
Selective mutism			Intervention			Infants		
OR	Elective mutism	AND	OR	Treatment	AND	OR	Children	
OR	Mutism		OR	Therapy		OR	Young People	

Term three was included as Web of Science and ERIC did not provide the option of refining the search by age. Dictionary terms were used within Psych Info and Medline where this option was available and the terms were replicated in Web of Science and ERIC where this option was not. This approach ensured the search was replicable across all data bases and for any other database search in future.

All databases allowed searches to be refined by language, year and article type. Articles in English and peer reviewed articles were chosen as limiters. In Psych Info and Medline this meant selecting *academic / professional journals*, within Web of Science selecting *articles and reviews* and selecting *peer reviewed only* in ERIC. In all databases the search was refined by the timeframe of 1994 to present.

## Appendix B                    Literature Review Inclusion and Exclusion of Articles

After the initial search 631 studies were identified. Mendeley referencing software (Elsevier, 2016) was used to combine search results and 223 duplicates were identified and removed. This produced 408 article titles and abstracts to check for eligibility according to the inclusion and exclusion criteria.

334 were removed in the following stages:

- The mutism was associated with a medical condition, surgical trauma or infection which affected the brain ( $n = 123$ )
- The mutism was associated with schizophrenia or other catatonic condition ( $n = 19$ )
- The mutism was associated with autism ( $n = 15$ )
- The focus of the article was not about SM. Most articles related to general anxiety or other internalising / externalising disorders ( $n = 68$ )
- Reviews of books or other articles, including letters to the editor ( $n = 17$ )
- The article related to SM but did not describe an intervention study. For example, literature reviews and comorbidity studies ( $n = 62$ )
- The main treatment described in the study was pharmacological ( $n = 26$ )
- Studies which had yet to be removed where the participant had a comorbid diagnosis that could influence their speaking behaviour. For example, Tourette's or Down syndrome ( $n = 4$ )

The titles, abstracts, and where necessary, full text of the remaining 74 studies were scrutinised for eligibility and a further 45 were removed because:

- The study did not report details of a comparable measure of change pre and post intervention ( $n = 32$ )
- The intervention did not have a psychosocial element ( $n = 9$ )
- The mutism described did not meet the criteria set out in the DSM 5 ( $n = 4$ )

The remaining 29 studies were read to ascertain who had made the outcome measure. This information was extracted for comment in the review but only the 11 studies where a parent and teacher rating had been made were analysed in depth.



## Appendix C    Downs and Black (1998) Checklist for Measuring Study Quality

### Reporting

**1.** Is the hypothesis/aim/objective of the study clearly described?  
(Yes = 1, No = 0)

**2.** Are the main outcomes to be measured clearly described in the Introduction or Methods section?  
*If the main outcomes are first mentioned in the Results section, the question should be answered no.*  
(Yes = 1, No = 0)

**3.** Are the characteristics of the patients included in the study clearly described?  
*In cohort studies and trials, inclusion and/or exclusion criteria should be given. In case-control studies, a case-definition and the source for controls should be given.*  
(Yes = 1, No = 0)

**4.** Are the interventions of interest clearly described?  
*Treatments and placebo (where relevant) that are to be compared should be clearly described.*  
(Yes = 1, No = 0)

**5.** Are the distributions of principal confounders in each group of subjects to be compared clearly described?  
*A list of principal confounders is provided.*  
(Yes = 2, Partially = 1, No = 0)

**6.** Are the main findings of the study clearly described?  
*Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions. (This question does not cover statistical tests which are considered below).*  
(Yes = 1, No = 0)

**7.** Does the study provide estimates of the random variability in the data for the main outcomes?  
*In non-normally distributed data the inter-quartile range of results should be reported. In normally distributed data the standard error, standard deviation or confidence intervals should be reported. If the distribution of the data is not described, it must be assumed that the estimates used were appropriate and the question should be answered yes.*  
(Yes = 1, No = 0)

**8.** Have all important adverse events that may be a consequence of the intervention been reported?  
*This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events. (A list of possible adverse events is provided).*  
(Yes = 1, No = 0)

**9.** Have the characteristics of patients lost to follow-up been described?  
*This should be answered yes where there were no losses to follow-up or where losses to follow-up were so small that findings would be unaffected by their inclusion. This should be answered 'no' where a study does not report the number of patients lost to follow-up.*  
(Yes = 1, No = 0)

**10.** Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?  
(Yes = 1, No = 0)

### External validity

All the following criteria attempt to address the representativeness of the findings of the study and whether they may be generalised to the population from which the study subjects were derived.

**11.** Were the subjects asked to participate in the study representative of the entire population from which they were recruited?  
*The study must identify the source population for patients and describe how the patients were selected. Patients would be representative if they comprised the entire source population, an unselected sample of consecutive patients, or a random sample. Random sampling is only feasible where a list of all members of the relevant population exists. Where a study does not report the proportion of the source population from which the patients are derived, the question should be answered as unable to determine.*  
(Yes = 1, No = 0, Unable to determine = 0)

**12.** Were those subjects who were prepared to participate representative of the entire population from which they were recruited?  
*The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population.*  
(Yes = 1, No = 0, Unable to determine = 0)

**13.** Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive?

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For the question to be answered yes the study should demonstrate that the intervention was representative of that in use in the source population. The question should be answered no if, for example, the intervention was undertaken in a specialist centre unrepresentative of the hospitals most of the source population would attend.

(Yes = 1, No = 0, Unable to determine = 0)

### Internal validity – bias

**14.** Was an attempt made to blind study subjects to the intervention they have received?

*For studies where the patients would have no way of knowing which intervention they received, this should be answered yes.*

(Yes = 1, No = 0, Unable to determine = 0)

**15.** Was an attempt made to blind those measuring the main outcomes of the intervention?

(Yes = 1, No = 0, Unable to determine = 0)

**16.** If any of the results of the study were based on “data dredging”, was this made clear?

*Any analyses that had not been planned at the outset of the study should be clearly indicated. If no retrospective unplanned subgroup analyses were reported, then answer yes.*

(Yes = 1, No = 0, Unable to determine = 0)

**17.** In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients, or in case-control studies, is the time period between the intervention and outcome the same for cases and controls?

*Where follow-up was the same for all study patients the answer should yes. If different lengths of follow-up were adjusted for by, for example, survival analysis the answer should be yes. Studies where differences in follow-up are ignored should be answered no.*

(Yes = 1, No = 0, Unable to determine = 0)

**18.** Were the statistical tests used to assess the main outcomes appropriate?

*The statistical techniques used must be appropriate to the data. For example non-parametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken but where there is no evidence of bias, the question should be answered yes. If the distribution of the data (normal or not) is not described it must be assumed that the estimates used were appropriate and the question should be answered yes.*

(Yes = 1, No = 0, Unable to determine = 0)

**19.** Was compliance with the intervention/s reliable?

Where there was noncompliance with the allocated treatment or where there was contamination of one group, the question should be answered no. For studies where the effect of any misclassification was likely to bias any association to the null, the question should be answered yes.

*For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered as yes.*

(Yes = 1, No = 0, Unable to determine = 0)

**20.** Were the main outcome measures used accurate (valid and reliable)?

*For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered as yes.*

(Yes = 1, No = 0, Unable to determine = 0)

### Internal validity - confounding (selection bias)

**21.** Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population?

*For example, patients for all comparison groups should be selected from the same hospital. The question should be answered unable to determine for cohort and case-control studies where there is no information concerning the source of patients included in the study.*

(Yes = 1, No = 0, Unable to determine = 0)

**22.** Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same period of time?

*For a study which does not specify the time period over which patients were recruited, the question should be answered as unable to determine.*

(Yes = 1, No = 0, Unable to determine = 0)

**23.** Were study subjects randomised to intervention groups?

*Studies which state that subjects were randomised should be answered yes except where method of randomisation would not ensure random allocation. For example alternate allocation would score no because it is predictable.*

(Yes = 1, No = 0, Unable to determine = 0)

**24.** Was the randomised intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable?

*All non-randomised studies should be answered no. If assignment was concealed from patients but not from staff, it should be answered no.*

(Yes = 1, No = 0, Unable to determine = 0)

**25.** Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?

*This question should be answered no for trials if: the main conclusions of the study were based on analyses of treatment rather than intention to treat; the distribution of known confounders in the different treatment groups was not described; or the distribution of known confounders differed between the treatment groups but was not taken into account in the analyses. In non-randomised studies if the effect of the main confounders was not investigated or confounding was demonstrated but no adjustment was made in the final analyses the question should be answered as no.*

(Yes = 1, No = 0, Unable to determine = 0)

**26.** Were losses of patients to follow-up taken into account?

*If the numbers of patients lost to follow-up are not reported, the question should be answered as unable to determine. If the proportion lost to follow-up was too small to affect the main findings, the question should be answered yes.*

(Yes = 1, No = 0, Unable to determine = 0)

#### Power

**27.** Did the study have sufficient power to detect a clinically important effect where the probability value for a difference being due to chance is less than 5%?

$n_1 < n_1 = 0$

$n_1 - n_2 = 1$

$n_3 - n_4 = 2$

$n_5 - n_6 = 3$

$n_7 - n_8 = 4$

$n_9 = 5$

Taken from Downs and Black (1998) p.382-384.



**Appendix D      Overview of Scores From Quality Checklist (Downs & Black, 1998)**

Checklist item ( <i>total points available</i> )	Klein, et al. (2016)	Oerbeck et al. (2015)	Conn and Coyne (2014)	Oerbeck et al. (2014)	Bergaman, et al. (2013)	Mitchell and Kratochwill (2013)	Oerbeck et al. (2012)	Ooi et al. (2012)	Vecchio and Kearney (2009)	Fisak et al. (2006)	Suveg et al. (2006)
1 (1)	1	1	0	1	1	1	1	1	1	0	0
2 (1)	1	1	1	1	1	1	1	1	1	0	1
3 (1)	1	1	1	1	1	1	1	1	1	1	1
4 (1)	1	0	1	1	1	1	1	1	1	1	1
5 (2)	0	0	0	2	0	0	0	0	0	0	0
6 (1)	1	1	1	1	1	1	1	1	1	1	0
7 (1)	1	1	0	1	1	1	1	0	0	0	0
8 (1)	0	0	0	0	0	0	0	0	0	0	0
9 (1)	0	1	1	1	1	1	1	1	1	1	1
10 (1)	1	1	0	1	1	1	1	0	0	0	0
11 (1)	0	0	0	1	0	0	0	0	1	0	0
12 (1)	0	0	0	0	0	0	0	0	0	0	0
13 (1)	1	0	1	1	1	1	1	1	1	1	1
14 (1)	0	0	0	0	0	0	0	0	0	0	0
15 (1)	1	0	0	0	1	0	0	0	0	0	0
16 (1)	0	1	0	1	1	0	1	0	0	0	0

Appendices

Checklist item ( <i>total points available</i> )	Klein, et al. (2016)	Oerbeck et al. (2015)	Conn and Coyne (2014)	Oerbeck et al. (2014)	Bergaman, et al. (2013)	Mitchell and Kratochwill (2013)	Oerbeck et al. (2012)	Ooi et al. (2012)	Vecchio and Kearney (2009)	Fisak et al. (2006)	Suveg et al. (2006)
17 (1)	1	1	1	1	1	1	1	1	1	1	1
18 (1)	1	1	0	1	1	1	1	0	1	0	0
19 (1)	1	0	1	1	1	1	1	0	1	1	1
20 (1)	1	1	1	1	1	0	0	1	1	0	1
21 (1)	1	0	0	1	1	1	0	0	1	0	0
22 (1)	1	0	1	0	0	1	1	1	1	1	1
23 (1)	0	0	0	1	1	1	0	0	1	0	0
24 (1)	0	0	0	1	1	0	0	0	0	0	0
25 (1)	0	0	0	1	1	0	0	0	0	0	0
26 (1)	1	1	0	0	1	0	1	0	1	0	0
27 (5)	5	5	1	5	5	1	4	1	2	1	1
Total	21	18	11	26	25	16	19	11	18	9	10

## Appendix E Tables of Excluded Articles

All definitions given at the end of Appendix E.

### *Psychosocial intervention studies for Selective Mutism 1994 – 2017: Main outcome rated only by a teacher*

Authors	Country	Study design	Type of intervention	Population and demographics	Dependent variable(s)	Summary of findings
Howe & Barnett (2013)	America	Single case accountability design.	Behavioural (contingency management, shaping).	4-year-old Caucasian male.	Teacher report which counted the number of times the participant was heard speaking as well as coding for social interactions and multi-word use.	Graphs show an overall increase in social interactions from baseline to post-treatment and some small improvements in initiating a conversation, although this progress was not consistent across treatment sessions. There was an increase in multi-word use.
Sanetti & Luiselli (2009)	America	Case study.	Behavioural (stimulus fading, shaping, goal-setting, contingency management).	8 year old female.	Points were earned for number of words spoken.	Over the course of the intervention the participant obtained points for meeting her targets and her speech improved incrementally from a whispering volume to a conversational level.
Beare, Torgerson, & Creviston, (2008)	America	Single subject ABA multiple baseline design.	Behavioural (contingency management and stimulus fading).	12-year-old male.	Number of verbal responses and rate of words spoken.	Mean of verbal responses and response time improved from baseline to end of intervention.
Kern, Starosta, Cook, Bambara & Gresham (2007)	America	Case studies with a changing criterion design.	Behavioural (priming, prompting, contingency management).	2 participants. A 13 year old female and an 11 year old male.	Number of independent or prompted vocalisations in response to teacher questions.	Graphical representations show both students had an increase in independent vocal responses from baseline compared to the end of treatment.

## Appendices

### *Psychosocial intervention studies for selective mutism 1994 – 2017: Main outcome rated only by a parent*

Authors	Country	Study design	Type of intervention	Population and demographics	Dependent variable(s)	Summary of findings
Esposito et al. (2016)	Italy	Single blind randomised control trial.	Psychomotor.	138 Caucasian participants with SM Group A (Psychomotor treatment) contained 67 children, 35 males, mean age 7.8 years. Group B (parental education control) contained 71 children, 37 males, mean age 7.8 years.	CBCL, SMQ.	After 6 months of treatment Group A showed significant improvements in CBCL scores. Group A also showed significant improvements in speech as rated by the SMQ compared to baseline, and to Group B SMQ scores at the end of treatment.
Lang, et al. (2016)	Israel	Retrospective naturalistic study.	CBT.	24 participants aged 5 to 15. 12 females and 12 males. Mean age at treatment 6.4 years.	ADIS, SMQ, CGI – I and CGI – S.	No correlation between length of treatment and clinical improvements on the CGI-S. SMQ scores significantly improved.
Wright, Cuccaro, Leonhardt, Kendall & Anderson (1995)	America	Case study.	Multimodal: family therapy, play therapy and pharmacology.	4 years and 10 month old Caucasian female.	CBCL, PSI and VBAS.	CBCL total scores decreased slightly, mainly for somatic complaints although the social problems scale showed a slight increase. PSI and VBAS scores also decreased slightly. No statistical significance is reported.

*Psychosocial intervention studies for SM 1994 – 2017: Main outcome rated by the therapist*

Authors	Country	Study design	Type of intervention	Population and demographics	Dependent variable(s)	Summary of findings
Lang, Regester, America Mulloy, Rispoli & Botout (2011)	America	Single subject multiple baseline.	Behavioural (Role play and video self-modelling).	9-year-old female.	Number of audible responses, initiations breakdowns and repetition.	Mean number of responses increased in all social settings targeted (restaurant, with unfamiliar peers and unfamiliar adults).
Shriver, Segool & Gortmaker (2011)	America	Case studies.	Behavioural (contingency management, priming, shaping, stimulus fading).	2 participants. 10 year old Caucasian male and 7 year old Caucasian male.	Percentage of opportunities for communication taken.	The first participant increased his non-vocal responses to teacher prompts from 11% at baseline to 78% after 5 weeks, 81 % a few weeks later and to all opportunities by 5 months. When the intervention focused on speech he responded to 80% of opportunities provided. The second participant had an increase in oral responses from 0 to 54% of opportunities at an unspecified follow up.
Jackson, Allen, America Boothe, Nava & Coates (2005)	America	Case study.	Multimodal (systems, cognitive/ behavioural, psychodynamic (play therapy).	6 year old male.	Parent journal about the participants use of communication, self-report measures, dynamic interpretation from play activities and time sampling using the CSC-SM.	There was a significant increase in verbal behaviours. After 21 sessions the participant was communicating verbally at school, in public and with peers. He was reported to be speaking freely at school at follow up.
Russell, Raj & John (1998)	India	Case study series.	Multimodal (including behavioural, SALT and pharmacology).	3 participants. Age, gender and ethnicity unreported.	DASH, defiance subscale of the NYTRS, VSS.	Speech increased significantly according to the VSS. NYTRS and DASH scores decreased significantly. Clinical and statistical improvements were gradual but sustained over the 12 weeks.

## Appendices

### *Psychosocial intervention studies for selective mutism 1994 – 2017: Main outcome rated by more than one individual in combinations other than parent and teacher*

Authors	Country	Study design	Type of intervention	Population and demographics	Dependent variable(s)	Summary of findings	Main outcome measure rater(s)
Mayworm, Dowdy, Knights & Rebelez (2015)	America	Case study.	Behavioural (Contingency management, graduated exposure, shaping, stimulus fading).	6 year old Latina female.	Number of verbal and non-verbal responses and interactions exhibited by the student in targeted scenarios.	Graphs show that the frequency of a non-response fell in all school based target scenarios and her verbal and nonverbal responses increased.	Therapist and teacher.
Bunell & Beidel (2013)	America	Case study.	Behavioural (graduated exposure, reinforcement, shaping, and social effectiveness therapy).	17 year old female.	ADIS –IV – C/P, SPAI- C-PV, CDI, SUDS.	Scores on the SPAI-C, SPAI-C-PV, CDI and SUDS ratings suggested the participant was experiencing less social anxiety than at pre-treatment. Frequency tables suggest she spoke more at school and outside the home by the end of the intervention period.	Parent and participant.
Christon et al. (2012)	America	Case study.	CBT.	15-year-old Latina female.	SMQ, RCADS, SUDs, Number of words spoken to therapist in the session.	Number of words spoken in sessions increased. SUDS ratings fell suggesting she felt less anxious. SMQ and RCADS score improved after treatment.	Parent, therapist and participant.
Reuther, Davis, Moore & Matson (2011)	America	Case study.	CBT.	8-year-old Caucasian male.	Weekly SUD rating on fear hierarchy as judged by participant and parent, ADIS –IV, CBCL, MASC.	No longer met criteria for SM at end of treatment. Child and parent ratings of fear hierarchy decreased. CBCL and MASC fell and were in the non-clinical range at the end of the intervention.	Parent and participant.

Authors	Country	Study design	Type of intervention	Population and demographics	Dependent variable(s)	Summary of findings	Main outcome measure rater(s)
O'Reilly et al. (2008)	Ireland	Two case studies with multiple baseline.	Behavioural (social skills training).	2 participants. Female sisters aged 5 and 7	Number of audible vocalisations to target questions in a lesson.	Both participants went from answering 0% of target questions to 100% by the end of the therapeutic period. Teacher reports indicate this also continued after intervention.	Therapist and teacher.
Sharkey, McNicholas, Barry, Begley & Ahern (2008)	Ireland	Pre and post group design.	Multimodal (group therapy, CBT and systems).	5 Caucasian child participants. 4 females. Child A and B were 5-year-old monozygotic twins. Child C was 8. Child D and E were 6. 7 Parents of the 5 children took part in a parental group.	CGI, CGAS, SDQ, SMQ, CRS, SCAS.	Mean CGI and CGAS scores showed improvements but the size of this varied. Parents rated that children's speech significantly improved and children rated that social speech felt easier at the end of the intervention. SCAS scores suggested the overall level of anxiety significantly decreased. SDQ showed no significant changes. 2 out of 5 participants no longer met criteria for SM at follow up.	Parent and therapist.
Rye & Ullman (1999)	America	Case report.	Behavioural (systematic desensitisation and social skills training).	13-year-old male.	SUD rating out of 10 against fear hierarchy events, frequency of verbalisations from retrospective comparisons, school attendance, participation in extracurricular activities.	Average SUD rating at baseline was 6.72. Average SUD rating after experiencing the feared event in therapy was 1.25. Average number of conversations increased from 0 to 6. Narrative descriptions indicated an improvement in attendance compared to previous years and greater participation in extracurricular activities.	Participant and teacher.

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*Notes.* *ADIS IV (C/P)* Anxiety disorders interview schedule for DSM-IV- child / parent version, *CBCL* Child behaviour checklist, *CBT* cognitive behavioural therapy, *CDI* children's depression inventory, *CRS* Communication rating scale, *CSC-SM* Communication skills checklist – selective mutism, *CGAS* Clinical Global Assessment Scale, *DASH* Diagnostic Assessment of the Severely Handicapped, *MASC* Multidimensional Anxiety Scale for children, *NYTRS* New York Teacher Rating Scale for disruptive and anti-social behaviour, *PSI* Parenting Stress Index, *RCADS* Revised Children's Anxiety and Depression Scale, *SALT* speech and language therapy, *SCAS* Spence Children's anxiety scale, *SDQ* Strengths and difficulties questionnaire, *SMQ* selective mutism questionnaire, *SPAI-C - PV* social phobia and anxiety inventory for children – parent version, *SUDS* subjective unit of distress, *VABS* Vineland Adaptive Behavioural Scales ,*VSS* Vellore Speech Scale.

## Appendix F    Semi-Structured Interview Topic Guides

### Initial topic guide

The following questions can be used to guide the conversation but the discussion will be led by the interviewee. The interviewer will ask follow up questions based on their responses.

Grounded theory methods suggest the topic guide is adapted to explore themes as they arise out of interviews. However, the topic guide will always relate to the participant's experiences of teaching children with selective mutism and the aims of the study which are:

- To understand what teachers know about SM, the terminology and if this reflects trends in the literature
- To explore how teachers feel about pupils with SM
- To obtain teachers' views on school-based interventions for SM

### Introduction checklist

- Introduce myself to the participant, ensuring to thank them for their time.
- Establish myself as a post-graduate researcher interested in finding out what it is like to teach a pupil with selective mutism.
- Tell the participant that I'm talking to teachers to find out about their experiences and views and I hope to find some patterns in these discussions which can create a model as to how teachers perceive this issue.
- Mention that I developed an interest in this topic in my former job as a primary school teacher where I came into contact with pupils with selective mutism.
- Check the participant has read the information sheet and signed the consent form.
- Remind them of the definition of SM that I am using. Refer to the information sheet.
- Remind them the discussion will be recorded and check they are comfortable with this.
- Check the participant has any refreshments they may want. Make sure water is available.
- Establish the tone of the discussion by saying something like 'I'm really interested in hearing all about your experiences and for you to share as much with me as you can in our time. I'm really happy for it to be you talking without me saying much.'

### Questions / statements to generate discussion

These questions are designed to get participants talking. Unscripted follow-up questions relating to responses will also be used. These statements may be used selectively and in any order.

- Tell me all about your experiences of working with a child with selective mutism.
- Tell me about a typical day teaching a child with SM.
- Tell me about a specific time that stands out in your memory.
- How do / did you support the child?
- Did you have any thoughts as to why the child(ren) did not talk in some situations?
- Tell me your thoughts on the term 'selective mutism'

### Prompts

Where possible, the facilitator shall aim to use very general prompts throughout. The following statements could be used to help the participant elaborate on their response.

- Tell me a bit more about that?
- Tell me about a particular time / example of that
- What does / did that look like?
- How did you feel about that?
- Can you tell me about any other experiences you've had that were like that? Can you tell me about any other experiences you've had that were very different from that?

## Appendices

- Use small verbal prompts such as 'mmm' and non-verbal prompts such as nodding
- Summarise what a participant has said using their own words

### Debrief

Thank the participant for their time. Provide them with the debrief sheet, gift voucher and answer any questions they may have.

### Theoretical Sampling Topic Guide

The following questions can be used to guide the conversation but the discussion will be led by the interviewee. The interviewer will ask follow up questions based on their responses.

Grounded theory methods suggest the topic guide is adapted to explore themes as they arise out of interviews. However, the topic guide will always relate to the participant's experiences of teaching children with selective mutism and the aims of the study which are:

- To understand what teachers know about SM, the terminology and if this reflects trends in the literature
- To explore how teachers feel about pupils with SM
- To obtain teachers' views on school-based interventions for SM

### Introduction checklist – new participants

- Introduce myself to the participant, ensuring to thank them for their time.
- Tell the participant that I'm talking to teachers to find out about their experiences of teaching a pupil with selective mutism. I have been looking for patterns in these discussions which I have used to develop a model as to how teachers perceive this issue.
- Show the participant a diagram of my draft theory. Explain to them that I am meeting with them to see if the model captures their experiences.
- Check the participant has read the information sheet and signed the consent form.
- Remind them of the definition of SM that I am using. Refer to the information sheet.
- Remind them the discussion will be recorded and check they are comfortable with this.
- Check the participant has any refreshments they may want. Make sure water is available.
- Describe the categories and the connections between them to the participant.

### Introduction checklist – existing participants

- Greet the participant again and thank them for their time.
- Remind them of the purpose of my study and explain that I am now at a stage where I am refining my theory and would like to gain their thoughts on it at this stage.
- Remind the participant that they gave their consent to be re-interviewed at our first meeting. Provide the information sheet to read again if they wish to.
- Show the participant a diagram of my draft theory. Explain to them that I am meeting with them to see if the model captures their experiences.
- Remind them the discussion will be recorded and check they are comfortable with this.
- Check the participant has any refreshments they may want. Make sure water is available.
- Describe the categories and the connections between them to the participant.

### Questions / statements to generate discussion

These questions are designed to get participants to reflect on the diagram shown to them.

Unscripted follow-up questions relating to responses will also be used.

These statements may be used selectively and in any order.

- To what extent does this model and the categories in it fit with your experience?
- Do any categories stand out to you for any reason?
- Which category do you think is the most important?
- Do you agree with the direction of influence between each of the categories?

- Do you feel that *Scientific Enquirer* is an apt description of your role in this model? Would you use a different metaphor?
- Are there any other external influences that are not captured by this model?

### **Prompts**

Where possible, the facilitator shall aim to use very general prompts throughout. The following statements could be used to help the participant elaborate on their response.

- Tell me a bit more about that?
- Can you give me an example?
- Use small verbal prompts such as 'mmm' and non-verbal prompts such as nodding
- Summarise what a participant has said using their own words

### **Debrief**

New participants - Thank the participant for their time. Provide them with the debrief sheet, gift voucher and answer any questions they may have.

Existing participants - Thank the participant for their time. Participants will have already received a debrief sheet, but go through it again with them at this stage and answer any questions they may have.



## Appendix G

## Participant Background Questionnaire

25/04/2016, V.2, Ethics Reference: 19128

Participant number..... *(To be completed by the researcher to retain participant anonymity)*

**Please answer the following questions and return them with your consent form.**  
**All questions are optional.**

Age.....

Gender.....

Ethnicity.....

Local authority of current employment (e.g. Southampton).....

Do you currently teach a child with selective mutism? Yes  No

How many children with selective mutism have you taught in the last 2 years?.....

How old are / were these children?.....

Are / were these children male or female?.....



## Appendix H

## Example of Field Notes

## **Field Notes:** Interview 1 with participant 5 (Referred to by the pseudonym Tim)

Date: Thursday 3<sup>rd</sup> November 2016

**Location:** Primary school classroom. After school at 4.00pm

## Participant

- Tim had a dry sense of humour and some of his statements were made in sarcasm. He was a warm individual and these comments added humour at the time.
- Tim answered some questions directly to start with and often said “No” before offering an explanation. On a written transcript this could appear to be stand offish but did not give that impression at the time.
- Tim was self-deprecating at times, referring to his age and reluctance to change mind-set.
- Tim was genuinely interested in the subject. He contacted me directly in response to my advert. On several occasions he offered to find out more information for me about the child, or to put me in touch with other teachers of the same pupil. He was also keen to find out what conclusions I drew and where he would be able to access my thesis.
- A big part of Tim’s experience relates to the fact that the pupil’s mother is a colleague. Whilst I felt that Tim had genuine regard for this colleague and the pupil it is likely that this personal relationship impacted on his experiences and perceptions. As all perceptions are constructed this is fine but it should be noted that this will not be a typical factor in most teachers’ experiences.

## Interviewer

- Tim had forgotten our interview was to take place that day and the staff at reception were slow to pass on that I was waiting for him. I was therefore waiting for an hour before he could be interviewed. He was very apologetic but I was conscious of the fact that I had other things to do that day and this may have impacted on my demeanour.
- Tim had a lot to reflect on and this was my longest interview to date, as well as being late to start. I believe that towards the end my questions may have been more direct and focused on what I wanted responses to rather than reacting to his experiences as I wanted to bring the interview to an end.
- I liked Tim, and felt that his approach to teaching a pupil with selective mutism was insightful and empathetic.
- I notice that I want to reframe thinking for the participants who seem to take the mutism personally. I was also aware that I wanted to encourage Tim and let him know that his practice was in keeping with the suggestions of the wider literature, as I would do in my role as a trainee EP. I did not voice this but it may be noticeable in the way I interact with him.
- Tim has a number of years teaching experience. I notice that I am often deferential to people with lots of experience and will have to be mindful of this when I am coding.

## Environmental factors

- The interview took place in Tim's old class room that was being prepared for renovation. It was quiet and without distractions.
- Tim moves papers I had given him to sign around on the table on a few occasions. Because they are next to the recorder the rustling makes it difficult to accurately detect some of the words he says.



## Appendix I      Participant Advert



25/04/2016, V.2, Ethics Reference: 19128

A request for participants to take part in doctoral research

To Primary School Teachers

Would you like to be involved in a research study which aims to find out about primary school teachers' perceptions and experiences of selective mutism?

This research aims to gather information about teachers' views on this topic. This information will be used to create a theory that represents how primary school teachers view selective mutism and the factors which lead to these views. It is hoped that this can provide further insight into this area and maybe influence the way intervention for pupils with selective mutism is delivered in school.

Suitable participants would be interviewed in a one to one setting of their choice and will receive a £10 gift voucher in appreciation of their time.

### Am I a suitable participant?

The study aims to recruit participants who meet the following criteria:

- To currently be employed as a primary school teacher in the UK.
- To currently teach, or to have taught in the past two years, one or more children with selective mutism.
- To be willing to discuss experiences which relate to children who may not initiate or respond to speech in specific social situations, often at school. (Experiences which relate to children whose mutism may be better explained by their lack of familiarity with the language they are taught in, or by another condition such as autism, are not covered by the remit of this study)
- To be willing to discuss your experiences and views of children with selective mutism in a one to one interview.

If you would like to know more about this opportunity please contact me at  
[cew1g14@soton.ac.uk](mailto:cew1g14@soton.ac.uk)

This study will be taking place between May 1<sup>st</sup> 2016 and June 30<sup>th</sup> 2017.

Claire Williams

Trainee Educational Psychologist  
 Doctorate of Educational Psychology Programme  
 University of Southampton



**Appendix J****Participant Information Sheet**

25/04/2016, V.2, Ethics Reference: 19128

Dear Teachers

You are invited to take part in a research study which aims to find out about primary school teachers' perceptions and experiences of selective mutism. This research contributes to my thesis as part of the Doctorate Programme in Educational Psychology at the University of Southampton. My intent for this research is to gather information through interviews which can be used to create a theory that represents how primary school teachers conceptualise selective mutism. It is hoped this can provide further insight into this area and influence the way intervention for pupils with selective mutism is delivered in school.

The following information about the study may help you to decide if you would like to participate.

**What is selective mutism?**

The following criteria are adapted from the Diagnostic Statistical Manual (APA, 2013) and provide a definition of selective mutism for the purpose of this research.

1. Selectively mute describes children who do not initiate speech, or respond when spoken to in specific social situations where there is an expectation for speaking (e.g., at school) despite speaking in other circumstances (e.g. at home with close family).
2. Children with selective mutism might communicate in non-verbal means such as gesture and writing.
3. The duration of the mutism is longer than one month and does not coincide with the onset of school attendance.
4. The absence of speech is not attributable to an unfamiliarity with the language required in the social situation.
5. The lack of speech is not better explained by a communication difficulty, autism spectrum disorder, or other diagnosed circumstances.

**Would I be a suitable participant for this study?**

I am hoping to interview primary school teachers who currently teach, or who have taught in the last two years one or more children with selective mutism. I am primarily interested in experiences which relate to children who meet most of the criteria set out in the above section. This means that experiences which only relate to children whose mutism may be better explained by the circumstances mentioned in criteria 4 and 5 are not covered by the remit of this study.

**What will my involvement in the study look like?**

Involvement in this study would require you to be interviewed in a one to one setting of your choice. It is expected the interview would last 60 minutes. During this time you would be asked to tell me a bit about your experiences of teaching a child with selective mutism. The questions will focus on your experiences and you will not be asked to share any details or information that could be used to identify individual children.

To help me analyse the responses more closely I will record the interview with a dictaphone so that I can write up a transcript of our conversation.

The content of the responses given in interviews will be analysed to draw out key themes. As each interview is analysed new themes will occur. I may contact you again to see if you wouldn't mind being re-interviewed to ask you some further questions that relate to these new themes.

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### **I'm interested in taking part in this study. What should I do next?**

If you would like to take part in the study you can contact me via email at [cew1g14@soton.ac.uk](mailto:cew1g14@soton.ac.uk). It would be helpful if you could provide your full name, email address and a contact number. I will get in touch to organise a time and place for our interview that is convenient for you. You will be asked to read and complete the consent form that accompanies this letter before the interview begins. There is also a short background questionnaire to fill in.

### **What will happen if I do not want to carry on with the study?**

Your participation in this study is entirely voluntary and you would be free to withdraw at any time, without giving a reason.

### **Are there any benefits or risks to taking part?**

You may feel uncomfortable sharing your experiences with someone you are not familiar with. However, the discussion is hoped to be informal, enjoyable and a chance for you to share your views. All participants will receive a £10 gift voucher as an appreciation of their time. Your involvement in this study would be completely anonymous. The only exception being that a participant's details may be revealed if they share their involvement in a child protection issue which the researcher feels should be reported to a higher authority.

### **How will my data be stored and used?**

Your consent form and anonymous participant questionnaire will be stored in a locked cabinet at the University of Southampton for ten years. Audio recordings will be stored on a password protected network until the study is published. Transcripts will be stored for ten years before being destroyed. Your contact information will only be stored on the secure network under an assigned pseudonym until completion of my Doctorate in Educational Psychology in June 2017. You may request data relating to yourself to be made available to you or to be destroyed at any time.

I will use the transcript of our conversation to look for patterns in responses between interviews. The findings will be written up as a report for my doctoral thesis. This report may include quotes from our discussion but pseudonyms will be used and it will not be possible to be identified from the report. The findings may be presented in academic forums or submitted for publications in academic journals but all data will be anonymised.

### **What if I have further questions or there is a problem?**

If you have questions, concerns or complaints about this research you can contact me throughout the study. You can write to Claire Williams, University of Southampton, Building 44a – Highfield Campus, University Road, Southampton, SO17 1BJ. Or you can email [cew1g14@soton.ac.uk](mailto:cew1g14@soton.ac.uk). If you would rather speak to a supervisor please contact Dr Julie Hadwin [julie.hadwin@soton.ac.uk](mailto:julie.hadwin@soton.ac.uk). If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: +44 (0)23 8059 3856, email [fshs-rso@soton.ac.uk](mailto:fshs-rso@soton.ac.uk)

### **Who has reviewed this study?**

This study has been reviewed and approved by the University of Southampton, School of Psychology Ethics Committee.

Thank you very much,

Claire Williams  
Trainee Educational Psychologist  
University of Southampton

**Appendix K**

**Participant Consent Form**



25/04/2016, V.2, Ethics Reference: 19128

**CONSENT FORM**

Study title: A grounded theory study of teachers' conceptualisations of pupils with selective mutism

**Researcher name: Claire Williams**

*Please initial the boxes if you agree with the statements:*

I have read and understood the information sheet and have had the opportunity to ask questions about the study.

I agree to take part in this research project and agree for the data to be used for the purpose of this study.

I understand my participation is voluntary and I may withdraw at any time without my legal rights being affected.

I am willing to be re-interviewed as part of the same study at a later date.

I have read and understood the details about storage of any data relating to myself in the information sheet. I agree to any interview conducted with myself during this study to be audio-recorded and transcribed.

Name of participant (print name).....

Signature .....

Date.....



## Appendix L

## Participant Debrief Sheet



25/04/2016, V.2, Ethics Reference: 19128

PARTICIPANT DEBRIEF SHEET

Study title: A grounded theory study of teachers' conceptualisations of pupils with selective mutism

Dear *(add participant name)*

Thank you for agreeing to take part in this research. The purpose of the study was to find out more about primary school teachers' views and experiences of teaching pupils with selective mutism. The aim of gathering this information from primary school teachers is to create a theory that represents how this group conceptualise selective mutism. It is hoped this can inform future research and influence the way that intervention for pupils with selective mutism is delivered in school.

The content of the answers given in interviews will be analysed to draw out key themes. As each interview is analysed new themes will occur and it may be helpful to revisit previously interviewed participants to find out what they think about these new themes. The process of interviewing and analysis will carry on until no new themes come up. At this stage I will organise the themes I have so that they link together to form a theory as to how teachers might conceptualise pupils with selective mutism and the factors that influence this. I will then write up my findings in a report. This report may contain direct quotes from participants but please be reassured that no individual will be named in this report or that any information relating to you will be shared with your school or The University of Southampton. You have a right to withdraw as a participant from this study at any time. If you wish for any data relating to yourself to be made available, or to be destroyed please contact me at the email address below.

If your participation in this study raises questions or concerns about specific pupils you presently, or have previously taught it is recommended that you address these with the Special Educational Needs Coordinator (SENCo) in your school. Further information about selective mutism is available from the Selective Mutism Research and Information Association (<http://smira.org.uk/>).

If you have any further questions or comments about this study, please contact me at the following email address

*Claire Williams*                    *cew1g14@soton.ac.uk*

Thank you for taking part in this research.

Claire Williams

Trainee Educational Psychologist, University of Southampton

*If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: +44 (0)23 8059 3856, email [fshs-rso@soton.ac.uk](mailto:fshs-rso@soton.ac.uk)*



## Appendix M      Extract of a Transcript for an Interview with Participant Six

*Throughout this transcript all names have been changed to ensure anonymity*

## **Project Title:** A Grounded Theory Study of Teacher's Conceptualisations of Selective Mutism

**Date:** Thursday 17th November 2017

**Location:** Primary School where Participant Six teaches. The interview took place at 3.30 pm.

## Key

### *Italics* – Interviewer (Claire Williams)

### Non italics – Interviewee

### (Brackets) – Contextual information

.... - Simultaneous speech

### “xxx” – Reported speech

### ‘xxx’ -Thought

## Interview Transcript

*So if you'd like to start by telling me all about your experiences of teaching a child with selective mutism.*

Ok, so at first it's a little bit challenging because you don't know what to do if you, like, so obviously I did a bit of research and read a couple of books and erm, its really, making sure that they're involved as much as possible because they don't want to feel isolated at any point (...mmm) and, so make sure that in lessons that we do try and keep him involved by, whiteboard, giving him inputs and just checking. Even in the register, although they're not going to reply, still say their name. So, yep they're, he (...mmm) um things like that, erm making sure at the moment we sit him next to a friend so it keeps him in his comfort zone and that works really well, erm.

Yeah. Initially it was really hard, but as we get on I get to notice things that or 'why is he not doing that, is that because he hasn't got a pencil and he can't ask or is that because erm he's not really sure of the task and that because he can't see the board?' That kind of, slowly starting to see signals as you go on, but at the start it was a little bit tricky (...mmm) but I've only taught him for, what is it now, November, so three months (...mmm) so yeah I'm still developing and learning on the spot I suppose (...mmm) so yeah.

*And before you started to pick up those signals, what was it like?*

## Appendices

As in? Well I tried my best not to make it a problem because I think that's best for him and I think that best for me really. And still I'm just making sure of going over to him and trying to build up relationships, "it's ok not to know" like with any child, just do the same. I wouldn't necessarily do anything different for him than I would with anyone else, just make sure that he's involved as much as possible because I think that makes him feel, erm included in the class. I know that the year before there was a PowerPoint the children were shown, erm to explain his con, not condition but the way he is to the rest of the class so they understood, but his year, chat with parents he was fine to just get involved and get on with it, so yeah.

*You mention that you had a chat with parents beforehand (...yup) what sort of things, what messages did you get from them?*

Well we know parents quite well because obviously she's a teacher here so she would just say, to point me in the direction of, "this is what should happen next year, these are what he does so its ok if he," it was the common traits that she'd let me know about or freezing in work and she was on board if it needs to go home, she wasn't trying to use his autism as an excuse, it was kind of like 'no gonna do it' and if we kept those regularities through and all those erm, main things if you like, just to bring it up through the school. I think it's best for him. So she was just saying, "oh see this is him but don't treat him any differently, read this book" which I did and it did open my eyes a bit cause it said about like 'please do include me even though, please ask me questions even though I'm not going to be telling you the answer but don't think I'm stupid just because I can't talk.' So then that book was really interesting um. And yeah just keeping on tabs with her really, constant. She kept saying, um the start of the year on, just before the end of last year so, the start of September she suggested that I would go down to his classroom, erm just to be popping my head in and "I'm your new teacher" kind of getting to know him outside of the classroom, which I think has helped really well, because he does have a tendency to nod and things now because we built that relationship before July kind of so. Yeah.

## Appendix N    Excerpt of Initial Coding of Transcript from Participant One

Participant One: Interview one (01/08/16): Initial coding

Coded 17/08/16

Text	Code
<i>Ok so if you'd just like to tell me all about your experiences of working with a child with selective mutism.</i>	
Ok um do, what, would you like the background of the child?	Clarifying what experience means to her
Yes...	
<p>...Um err this boy um, I taught when he was in Year Three, so this was last year so he was seven / eight years old. Um his, erm, family background was quite turbulent in the sense that he had two um, two siblings, much much older. Erm, one I think last year was in Year 10 and one had left school that he was very, very close to. Um at the beginning err of Year Three they all lived as a family unit with mum and dad erm, but I know from teaching his older brother that, erm, mum and dad were on and off. So they'd been quite a few istace instances (with clarity for emphasis on her mispronunciation) previous to erm this boy reaching Year Three whereby, erm, he had been living with dad, or then living with mum, or living as all of them or, being moved to live with nan. Erm, and as when he started in Year Three everyone was together (...mmm) by the Christmas his, erm, mum had moved out and eldest brother who, he was closest to had moved with mum as well so he wasn't getting to see his older brother. Erm and erm his sister had then moved out, erm, which he found really difficult because he wasn't with the people he was closest to. Erm, then his brother moved back in with him then he moved in with his brother with mum so then there was lots kind of shifting (...mmm) around and then mum went on holiday for quite an extensive amount of time with boyfriend and yes so there was a lot, it was a very unsettled (...mmm) home (...mmm). Things are, by the end of the year it kind of um sorted themselves out, a little bit more consistent and he is currently living with dad and his new girlfriend and her, erm, son from a previous erm relationship. Erm, yes so things are much more consistent now (...hmmm) and he sees his brother and sister more frequently but they both live with mum (...right). So that's</p>	<p>Describing background: Year 3 child Interpreting a turbulent background Describing relationship with older siblings Describing living arrangements of SM child Identifying parental relationship</p> <p>Describing former living arrangements of child Identifying the child's frequent moves Describing the family as together Identifying that siblings frequently move in and out Describing loss of contact with siblings Interpretation of difficulty due to not seeing siblings Identifying parental absence Interpreting an unsettled home life</p>

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<p>kind of his background.</p> <p>Erm he's one of the youngest in the year group as well, erm, and ability wise, when you look at his academic scores he was below average, erm, so that's him in a nutshell. Working with him we kind of had to do it on a day to day basis as to how he, his mood was, (...mmm). Erm, it depended on how his weekend had been or who'd he'd stayed with the night before as to how receptive he'd be in the classroom then next day. Erm, we set him up with a, erm, meet and greet with our TA first thing in the morning so she would be, erm, his first port of call in the office (...mmm). Erm, and he'd come in through that way rather than with the whole class to begin with because he was quite nervous, shy. He wasn't crying, he wouldn't cry he wouldn't be like clinging on (...mmm) to parents not wanting to come in but we found that when he came in with the whole class it took him a lot longer to settle in to the day to day routines (...mmm). So that's why we kind of put that in place to try and make the transition a bit smoother for him and quieter (...mmm) erm.</p>	<p>Describing the child as young</p> <p>Describing the child as low academic ability (part of her perception of a typical SM child?)</p> <p>Adapting to child's mood</p> <p>Interpreting home life as a factor in receptiveness</p> <p>Setting up intervention</p> <p>Explaining intervention approach</p> <p>Describing the emotions of the child</p> <p>Recognising that family separation is not a factor</p> <p>Identifying difficulties settling in</p> <p>Targeting intervention: smooth and quiet transitions</p>
<p><i>CW: And how did that go?</i></p> <p>It worked really really well for him. We only let it erm happen though for, I think it was about a term (...mmm). I think we did it for a about the length of a term and it was like October half term til February half term (...mmm) erm.</p>	<p>Succeeding with the intervention</p> <p>Timing of intervention</p>
<p><i>CW: When you say let it happen (...cough, we would...) What do you mean by?</i></p> <p>We only, we only put the system in place for that amount of time cause by October half term we kind of realised this wasn't working for him (...OK) cause we're a junior school not an infants so we're getting to know the kids, erm, and we didn't want that to be the only system that he knew for the whole of his first year at junior school. So by February half term we then started to kind of wean it off and then say right on "Monday we'll meet you and then go have you", and he had a reward chart to come in on a Tuesday and um you know let's do this week and by the end of the spring term he was coming in nor, with like everybody else.</p>	<p>Limiting the intervention duration</p> <p>Realising / evaluating why intervention needed to end</p> <p>Understanding long term needs</p> <p>Weaning him off intervention</p> <p>Using reward systems</p> <p>Succeeding with the intervention</p> <p>Conforming</p>

**Appendix O****Example of an Initial Coding Memo****Participant Three Interview One: Initial Coding Memo**  
**Created 09/10/16**

(Referred to by the pseudonym Harriet)

- Teacher / pupil relationship  
Harriet mentions a lot of concern and worry for the children she has taught. Especially ones who have moved on. She seems to get to know her pupils and has a lot of knowledge of them which she believes is important to share with others. Her relationship with the pupil allows her to tailor her approach.
- Outcomes and expectations  
In this interview there are several desired outcomes, happiness is mentioned but speech seems to be associated with this. As long as the child is talking the assumption seems to be that they are feeling ok. However, she doesn't expect them to speak. There is not a pressure for this to happen if they are not ready to do so. Harriet also describes having a checklist to show others / parents that she has tried something. A desired outcome is that others know she has tried.
- Origins  
Harriet is keen to know what 'causes' the mutism and seems to believe there is a key factor that will lead to the mute behaviour and will also provide a clue as to how to solve the behaviour (i.e. it is something that does need to be changed although in the child's own way and time). Harriet makes a lot of links with parental behaviour, background and with siblings. She seems to base her hypotheses in a family systems model.
- Understanding  
Harriet wants to know the origins but also what category it should come under. The category has a powerful influence over who might support her and what she might do. Harriet is an experienced teacher but wants someone with confidence in their understanding to offer her direction. Harriet has some theories about why communication is affected, including home life and use of technology. Her perception is that it is a spectrum. Other participants may see if more black and white (i.e. talk / don't talk.) Harriet's view of a spectrum may influence her opinion that speech is a 'bonus' and takes its absence less personally.



**Appendix P****Focused Coding Memo****Memo: Supporting Pupils**

First created on 25/10/16. This category arose from the participants' mentions of the ways that the pupil is supported. The root node contains any mention of support strategies. It contains sub-categories which include:

- External agency support – instances where the teacher has worked with outside support services such as speech and language therapists and EPs. Originally this also included mentions of the desire to have this involvement but this was felt to be a separate issue and a new sub-category of 'ideal support' was added to *Teacher as an Enquirer*. This sub-category links closely with *Emotional Responses* and overall *Categorisation*. I.e. where support has been available it has impacted on the teacher's view of the child.
- Factors affecting support and progress – teachers often mention factors which either help or hinder the desired approach for support and the subsequent impact on progress. This contains many other sub nodes which are envivo terms, aimed to capture the broad description on offer.
- Rationale for support – describes the reasons why teachers put the support approach in place. These vary and are often linked to *conceptualisation*, the *measures* that the teachers wish to see change and the *factors which affect support* e.g. time constraints.
- Working with home – there were frequent mentions of how the teachers worked with parents. It was a significant enough factor to justify its own sub node and to not be included with *factors affecting support*.

**Timeline of adaptations****25/10/16 – first created****11/11/16: Continued focused coding**

- **Moved:** *Working with home* – moved to be a part of *Pupil Support* as most references relate to ways that this relationship was explored to support the pupil or to facilitate communication which would lead to improved support.
- **Changed:** *Factors affecting support – Pupil mood* to *Pupil mood and emotion*. This widens the category to refer to instances where the pupil's emotional state can influence the success of an approach or overall progress. Mood is linked to emotion and emotion may be a better overall label moving forward.

**13/11/16: Continued focused coding**

- **Added:** To *Factors affecting support – appropriateness of intervention*. Captures feelings that the approach in place was not effectual because it did not target the needs appropriately.

**13/01/17: Continued focused coding**

- **Changed.** *Factors affecting support* to *Factors affecting support and progress*. Progress is linked to support as it is the outcome. Some references are made to barriers to general learning and not just the support in place. Most coding has been done with this in mind but I only noticed that the label did not fully capture this.
- **Added – factors affecting support – pupil ability.** New factor

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- **Added-** *Pupil support – factors affecting support and success – finance*. Similar to staff shortages in that finance is the underlying cause of this, but also captures a barrier that may make other support available such as private assessments.

### 06/02/17: Continuation of focused coding

- **Added – pupil support – factors affecting pupil support – access to resources.** This is about accessing tangible intervention approaches that are known but not accessible for whatever reason. Not the same as conflicting demands which relate to the needs of other learners in the class, school and locality.
- **Changed pupil support – factors affecting pupil support – pupil mood and emotion to pupil's motivation and emotional state.** Because the teacher can influence motivation it replaces mood. Mood is more of a within child view of the situation.
- **Changed – pupil support – factors affecting pupil support – confidence in the approach to staff confidence and expertise.** Needed to include the expertise, staff may know what they want to do but don't feel they are skilled enough.
- **Changed – pupil support to Supporting Pupils.** This phrasing captures that it is a dynamic process that teachers engage in rather than a statistic description of what they do.

## Appendix Q Coding Manual

Category	Sub-category	Example
<b>Categorisation</b>		<p><i>“Whatever it was that was causing his mutism we just accepted that was part of him.”</i> (Tim)</p> <p><i>“I knew she was talking to her peers I thought ‘she’s choosing not to speak to the adults’, so that’s why I called it selective mutism.”</i> (Emma)</p> <p><i>“It wasn’t until I met the speech and language lady... and she gave me lots of books and things to read that I realised it was based on her anxiety.”</i> (Ella)</p>
<b>Teacher as a scientific enquirer</b>	<b>Comparing and contrasting pupils</b>	<p><i>“Children who are on the autistic spectrum it’s all more sort of part and parcel of what they are, and how they are and who are they are and you’re sort of developing their whole communication. But the difference is his other communication is good, and he’s got all the nonverbal reasoning and all those sort of skills and that this is just that one thing holding him back.”</i> (Sophie)</p>
	<b>Hypothesising reasons</b>	<p><i>“Mum was quite a timid parent herself and had a bad experience at school, so I don’t know if her experience has rubbed off on Evie, so that anxiety made Evie worse.”</i> (Emma)</p>

Category	Sub-category	Example
	<p><b>Projecting an interpretation</b></p> <p>During the course of the interviews teachers made several references as to what a pupil with SM might have been thinking. This was their interpretation rather than the pupil's thoughts communicated through non-verbal means.</p>	<p><i>"It's that wall of 'I don't want to do it, I feel safe here, I don't want to move from my chair, I'm going to stay here'."</i></p> <p>(Olivia)</p>
	<p><b>Researching and reading</b></p> <p>Several teachers had sought further information from sources external to school such as looking up information online and reading articles about SM.</p>	<p><i>"Reading the book and doing a bit of research into the condition helped a lot."</i></p> <p>(Tim)</p>
	<p><b>Underlying cause</b></p> <p>Teachers often felt that there was an underlying cause for the SM. They felt that knowledge of this cause would guide them and they would then know what to do to support the child. Many of their enquiries were made in a bid to identify what this cause was. This sub-category captures mentions of there being an underlying cause or wanting to know what this was.</p>	<p><i>"I think with all those these sorts of things there's a catalyst somewhere and you don't always know what that catalyst is."</i></p> <p>(Harriet)</p>
	<p><b>Wondering about the wider picture</b></p> <p>Teachers not only hypothesised about the cause of SM and how best to support the pupil but also how they might fare in the future. Teachers expressed their wonder about this time and made predictions for the pupils' future based on their current knowledge of them.</p>	<p><i>"I think that as he gets older if he doesn't begin to communicate it might be an issue because those problems tend to increase as they get older."</i></p> <p>(Nathan)</p>
<p><b>Supporting pupils</b></p> <p>All participants had a drive to try and help the pupil reach favourable outcomes. This category refers to the type of support that teachers put</p>	<p><b>Developing a relationship</b></p> <p>Teachers described the importance of developing a positive relationship with the child, either directly or by ensuring they had somebody at school that they felt comfortable with. Building</p>	<p><i>"A lot of it would be about me providing time where we could talk together so we would be comfortable in that relationship."</i></p> <p>(Tim)</p>

Category	Sub-category	Example
in place, sought or wished to access for the pupil. It captures the thinking and reasoning that goes into this as well as the barriers that prevented it from taking place or having a positive impact.	rapport with the pupil was an ongoing support strategy for several teachers.	<p><i>"I think she [Class TA] was, she was very much a constant figure and one that he could trust and rely on."</i> (Helen)</p>
	<p><b>External agency support</b></p> <p>Several participants referred to the support that they had from outside agencies such as a Speech and Language Therapist or Educational Psychology Service. This sub-category captures any mention of this and the teachers' reflections and opinions on whether this helpful or not. Mentions of wanting more support from external agencies should be coded under 'Ideal Support' within this category.</p>	<p><i>"We tried to change like one thing at a time... so we started with her and the speech and language therapist."</i> (Ella)</p> <p><i>"CAMHS did come recently and do a cognitive assessment, which is better than nothing, but the cognitive I think I've got you know."</i> (Sophie)</p>
	<p><b>Factors affecting support and progress</b></p> <p>This sub-category captures the varied reasons why teachers felt that a support approach worked or did not work. The researcher originally kept a broad list of terms, many of which were envivo terms, to capture the broad range of ideas. Frequently mentioned factors include staff confidence and expertise, access to resources and financial limitations and environmental influences such as the demands of the rest of the class.</p>	<p><i>"We don't have the expertise for the erm, you know, the trauma and the autism side and that sort of thing."</i> (Sophie)</p> <p><i>"I find, especially in this location, there are time constraints...the priority seems to go to other children that have got more of a need."</i> (Emma)</p>
	<p><b>Ideal support</b></p> <p>This sub-category reflects the support the teachers wished they had access to. This was linked to their conceptualisation of SM.</p>	<p><i>"In an ideal world it would be brilliant to have someone of the expertise...to make that assessment. I would get someone who is a professional to come in and tell me exactly what's wrong and exactly what's right and exactly what he needs."</i> (Billy)</p>

Category	Sub-category	Example
	<p><b>Rationale for support</b></p> <p>This sub-category captures the reasons the teachers gave for using a particular approach to support a pupil with SM or for not using an approach. This refers specifically to their thinking behind support strategies. Thinking and rationale relating to the underlying cause of SM, or wondering about the pupil's thoughts and feelings should be coded in the <i>Teacher as a Scientific Explorer</i> category.</p>	<p><i>"It was a concern that if he had the talk box he would rely on the talk box and then choose... there would be no reason to talk because he would have that. So we didn't take up on it."</i> (Sophie)</p> <p><i>"He generally understood the instructions that were given to him so we didn't feel the need to give him a task board."</i> (Cathy)</p>
	<p><b>Working with home</b></p> <p>Several teachers mentioned that working with the pupil's family had an impact on the way they supported the pupil. For some teachers this was a valued part of their experience that made it easier to support the pupil. Other teachers found it hard to engage with the pupil's parents / caregivers and felt that this hindered their support.</p>	<p><i>"It does help that he has an incredibly understanding and supportive mother that trained him to do lots of things."</i> (Tim)</p> <p><i>"Unfortunately mum wasn't the most forthright person... she was very good when I spoke to her in person she was "oh yes, yes I'll do that, I'll do that" but we didn't get a lot of things from her."</i> (Emma)</p>
<p><b>Measuring and monitoring</b></p> <p>This category captures references to aspects of the experience which relate to making an assessment or judgement about the pupil's progress. This is not limited to academic progress but any changes that the teacher is looking for during their course of teaching a child with selective mutism.</p>	<p><b>Aspirations for success</b></p> <p>This sub-category highlighted the outcomes that teachers felt pupils achieved or were looking for during their time with them. These were the result of a direct intervention or general changes they would hope to see happen throughout the year. A number of different outcomes were mentioned including: the pupil speaking, the pupil feeling happy and comfortable at school and the pupil making academic progress.</p>	<p><i>"Well obviously I'd hoped that by the end of the year he would be able to speak to me in front of his peers."</i> (Tim)</p> <p><i>"If you can't do anything else at least make them feel better about themselves or come out feeling positive."</i> (Billy)</p> <p><i>"I think I'll try and do as much as I can with his academic side."</i> (Olivia)</p>

Category	Sub-category	Example
	<p><b>Working within local and national frameworks</b></p> <p>Teachers made several references to having to work within, or make assessments to fulfil the expectations of policies that were introduced by external sources. This included local policies at a school level, such as how guided reading should be delivered and assessed, local education authority policies such as the process of delivering SEN support and national frameworks such as the national curriculum.</p>	<p><i>"You needed to follow the behaviour policy but knowing that was his attempt at trying to communicate what was really going on [referring to a pupil with SM who had called out]."</i> (Cathy)</p> <p><i>"There's nothing for them [assessment levels], not even like on your p level scales really...it doesn't cater for children with selective mutism it just doesn't."</i> (Ella)</p>
<p><b>Responding emotionally</b></p> <p>This category covers the broad range of emotional responses that the teachers described when they were talking about their experiences. Teachers had a variety of different emotions connected to different categories, such as their reaction to putting support in place or the outcomes that the children achieved. Teachers described more than one emotional response in each interview. A broad range of emotions were coded to capture the nuanced details. Some of the most frequently mentioned were a frustrated sense of helplessness, excitement when the pupil made progress and finding the whole experience challenging. The latter was viewed as both an opportunity for professional development and as a difficult experience to go through. It is helpful to code these references with envivo terms to not lose the richness of this data and to see the broad scope of emotional responses that teachers experience.</p>		<p><i>"I liked the challenge that it provided me in having to problem solve and overcome ways."</i> (Helen)</p> <p><i>"I do feel quite sad about the situation at the moment. I feel I'm failing her... because I don't know how to help her or how else to help her."</i> (Lisa)</p> <p><i>"The first time he answered the register I was really excited."</i> (Harriet)</p>
<p><b>Pupil Profile</b></p> <p>This category captures the individual characteristics and background of the pupil with selective mutism. This category collects all this factual information. Sub-categories capture some of the recurring themes that were of interest to the researcher and may be relevant to future research. These factors</p>	<p><b>Communicating without speech</b></p> <p>This sub-category refers to the ways that pupils may communicate with the teacher that are non-verbal, such as using gestures and pointing to things to indicate what they want. This does not include speaking through peers which should be coded in the 'peers for communication' sub-category of the <i>Peer Relationships</i> category.</p>	<p><i>"Sometimes he'd just he'd nod to say "yeah I'm fine" or he would literally screw his face up if he didn't get it and he had quite the scowling kind of face if he didn't get it or he didn't want to do it."</i> (Cathy)</p>

Category	Sub-category	Example
have an impact on the teacher's whole experience. The presence or absence of these factors may make the process of working with the pupil easier whilst others may pose as a hindrance.	<b>EAL</b> A number of teachers had experience of working with pupils with SM for whom English was an additional language. This sub-category captures references to this and how this impacted on the teachers' experience.	<p><i>"They [the pupil] learnt it as a second language but their language skills were very good, particularly for their age, so they could read well they could write well, when they were talking they could talk well but they were just really, really shy."</i></p> <p>(Harriet)</p>
	<b>Pupil immaturity</b> Teachers frequently mentioned the pupil behaving in a way they felt was young for their age. This sub-category captures all references to this.	<p><i>"His maturity levels were quite significantly below the children in the rest of the class."</i></p> <p>(Helen)</p>
	<b>Profile of needs</b> This is a broad category that captures the range of difficulties that the teachers felt the pupil experienced. This category has to be broad due to the range of individual differences that teachers described, such as age and academic ability. The variation in need was too great to code in more depth.	<p><i>"There were certain situations he avoided, he generally wouldn't go to assemblies, didn't like assemblies at all."</i></p> <p>(Tim)</p> <p><i>"He is, from what we know, with the lack of evidence, a low ability child."</i></p> <p>(Billy)</p>
	<b>Significance of family factors</b> This category captures references from the teacher relating to the pupil's family background. This includes comments on parenting styles, family history of psychiatric disorders or SM / withdrawn behaviour and the pupils' relationship with family members, including siblings. References to working with parents to aid support for the pupil should be coded in the 'working with home' sub-category of the <i>Supporting Pupils</i> category.	<p><i>"Mum was also a selective mute until quite recently, but she's still very passive, in meetings she sort of sits on her phone and she does find it really hard to join in."</i></p> <p>(Sophie)</p> <p><i>"All 3 siblings there had exactly the same issues (SM). They were almost identical those children although they were years apart."</i></p> <p>(Harriet)</p>
	<b>Speech in extreme circumstances</b> Participants mentioned that the pupil had occasionally been heard	<p><i>"A few times, I think about three times I've heard a, you know,</i></p>

Category	Sub-category	Example
	to make a verbalisation in order to get their needs met, to express a heightened state of emotional arousal or because they had temporarily forgotten where they were. This sub-category reflects these references.	<i>glottal, a sort of just about to talk sound ... He was swimming on his back and I said something about swimming and he went 'ahh..' and then stopped.</i> (Sophie)
<b>Self-identity</b>  The category captures the individual characteristics of the participants that have bearing on their experience of teaching a pupil with SM. This includes references to their prior experiences and their personality features.	<b>Humour strategies</b>  This sub-category captures participants' references to utilising humour to try and establish a good working relationship with the pupil.	<i>I would quite often dance round and do something absolutely stupid, but um, he found that funny and so that was, it gave him a laugh it gave him something even though I must have looked like a complete idiot.</i> (Helen)
	<b>Impact of experience</b>  The participants often made references to the number of years they had been teaching and their familiarity with teaching a pupil with selective mutism. This sub-category captures all references to this including any mention where a lack of experience was felt to contribute to their present situation. This category does not include comparisons to teaching children with other difficulties which should be coded under the 'comparing and contrasting' sub-category of <i>Teacher as a Scientific Enquirer</i>	<i>The last two years we've had children in my class [with SM] so we've been a bit more focused and because we've had children before and tried bits and pieces, did work, didn't work. The last child particularly we were much more focused and so the support started before they came to school.</i> (Harriet)  <i>My experience of and understanding of selective mutism is very, very minimal.</i> (Billy)
	<b>Limitation of role</b>  This sub-category captures references from participants regarding the perceived limitation of their role and their desire to be able to do more than they are presently able to.	<i>There's a whole raft of little things all interweaving there and I'm nowhere near qualified or competent enough to pick them apart but it is a fascinating case I think.</i> (Nathan)
<b>Staff relationships</b>  This category describes the influence that working with other members of staff or other educators	<b>Collaborative working</b>  This captures instances where the teacher feels that they have been supported in their experience by other staff members and that they	<i>I have to say our child protection person is brilliant. So I feel happy that I can pass those onto her and something will be done... I know</i>

## Appendices

Category	Sub-category	Example
can have on the teacher's experience of teaching a pupil with selective mutism.	appreciate the involvement. This includes senior leaders, SENCos and support staff. It can also refer to teachers outside of their school.	<i>that my concerns are raised on his behalf.</i> (Sophie)
	<b>Competition</b>  This term captures instances where a teacher feels that they are in competition with other staff members to produce favourable outcomes for the pupil. For example being the staff member that the pupil will talk to in school.	<i>"She came over and she was "oh she's spoken to me" so it was a little bit like rubbing salt in the wound with myself and the TAs."</i> (Emma)
	<b>Contrasting viewpoints</b>  This sub-category describes instances where the teacher may hold a different view from other staff members. This could be about the pupil, the support they need or the nature and categorisation of selective mutism as a whole.	<i>"One of the SNAs is completely the opposite of me and so she would be very...in any communication she had she would probably be communicating the things that hadn't gone so well whereas I chose to communicate the things that did go well and the successes that could be celebrated."</i> (Helen)
<b>Peer relationships</b>  This category refers to the impact that other children at school have on the teacher's experience. This is often in the context of making the environment more manageable or challenging. It also refers to the way that peers treat children with SM and the effect that this has on the teacher's experience.	<b>Challenging peer relationships</b>  This sub-category captures instances where other children at school, usually classmates, can make it more challenging to work with a pupil with selective mutism. This includes presenting with challenging behaviour that uses up time and resources. It also captures instances where the behaviour of other children is felt to inhibit children with selective mutism and make them less likely to talk, such as drawing attention to them when they do talk.	<i>"His mum came to me once and said there was another girl in the class who was taking his things and picking on him, and I was unable to establish when this happened and who it was because he wouldn't speak."</i> (Nathan)  <i>"One day she said "good morning" and all the children just went "ahh she spoke, she said good morning, she spoke, nah nah nah" and she said they just went mad and then she watched her just go in to her shell and she said and then she never did it again."</i> (Ella)
	<b>Communicating through peers</b>  This refers to instances where a peer talks on behalf of the child with selective mutism. References	<i>"When he needed something like that he would have a pre-arranged signal with his friends who would</i>

Category	Sub-category	Example
	<p>were made to the pupil utilising a specific peer that they will communicate in some way with, verbally or non-verbally, in order to indirectly interact with the teacher or get their needs and preferences met. Teachers' responses to this may vary. Feelings on this should be captured in <i>Responding Emotionally</i>.</p>	<p><i>say "Mr Jones, Andy needs to go to the toilet."</i> (Tim)</p>
	<p><b>Supportive peer relationships</b></p> <p>This sub-category captures references to other children at school being supportive of the pupil with SM, such as including them in conversations and acting as a good role model. This does not include instances where pupils may speak on behalf of the pupil with SM which should be coded as 'communicating through peers' even if the teacher feels that it is a helpful behaviour.</p>	<p><i>"So because they've all come up with him and he's developed further they've really got to know how to interact with him. And it's nice to know that they haven't just gone 'yeah, that's, I'm not going to speak to you because you're not going to be' I think it's really nice the way that they've tried to involve him."</i> (Olivia)</p>



**Appendix R****Case Study Illustration of the Theory**

Ella's categorisation of SM changed from the perception that it was a manipulative behaviour to a belief that the pupil was highly anxious after speaking to a Speech and Language Therapist. Ella observed the pupil closely to see if the behaviour was consistent with the hypothesis of anxiety and read books to inform her about the link between SM and anxiety. She concluded that the pupil did appear to be anxious and as a result put in place support strategies that were designed to reduce this, such as providing opportunities for the pupil to work outside the classroom.

Ella was hopeful the pupil would talk at some point during the year as this would indicate that she felt less anxious; Ella was disappointed that she did not achieve this. She had strong views on how difficult it was to make an assessment of the pupil's progress against the national curriculum framework and felt it was not suited to pupils with SM. This made her feel frustrated and angry with the current government. Ella also felt guilty that she had to report progress levels to the pupil's parents that she did not feel reflected the pupil's true ability.

Ella described feeling sad and empathetic for the pupil when she linked the behaviour to anxiety. However she also described excitement when she experienced small steps of success, such as the pupil speaking to her for the first time.

Ella's experience was mediated by the support she had from school staff. The pupil's needs were prioritised and the school involved a SALT. This access to external agency support was highly valued. Ella also had a good working relationship with parents which she attributed to her chatty outgoing personality. Ella was able to utilise her knowledge of the pupil's individual characteristics. She was aware that the pupil spoke to her sister who attended the same school, and that she loved Disney princesses. She was able to integrate this information into her support strategies. Ella also valued that the pupil did occasionally speak to peers as this provided a channel of communication.



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